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The
**LONDON
NATURALIST**

The Journal of
**THE LONDON NATURAL
HISTORY SOCIETY**

FOR THE YEAR
1939

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The London Naturalist.

The London Naturalist and its supplement *The London Bird Report* are published annually, and provide a record of the activities of the Society during the year.

Contributions are welcomed from members of the Society on any topic of Natural History, and—space permitting—from non-members on any matter concerning the Society's Area. The "London Area," for the purposes of the Society, is that area which lies within a radius of twenty miles from St Paul's Cathedral, and includes the whole of the county of Middlesex.

Intending contributors are reminded that all matter for publication in *The London Naturalist* and *The London Bird Report* must be submitted in the first instance to the Sectional Secretaries, and not directly to the Editor.

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Presidential Address.

READ TO THE ANNUAL GENERAL MEETING,
24th February 1940.

FELLOW Members, I am glad that despite the inevitable upheaval due to the war it has been found possible to carry on the Society's activities in a modified form, and to hold the Annual General Meeting, even though it is somewhat delayed.

Up to the outbreak of hostilities, as you will have heard from the Reports which have been submitted to you, the Society was in a very healthy and flourishing condition, and our membership has been well maintained.

We are in a stronger financial position than ever before, but we are likely to lose some members through war service and war-time conditions, so I hope that as many members as possible will retain full membership and support the Society's activities, and those who cannot will, I trust, see their way to remain on the Register, and resume full membership as soon as may be.

There may be some who doubt the wisdom of trying to carry on such a Society as ours in war-time, but when everything in the way of culture is being assailed and destroyed by the enemy, we must preserve all we can of the things of the mind and spirit in this country of ours.

Our Society provides a means of increasing our knowledge of the various branches of Natural History and provides a recreation and a hobby which is both instructive and educational for young and old.

The war has limited our programme of indoor and outdoor meetings, but there is still room for research work by the individual member, and we should always hold before us the example and work of our illustrious member, Arthur Bacot. I was reminded of him the other day when I was in a taxi-cab with a friend of mine who produced from under his sock a piece of flannel on which was stitched a pad of muslin which he told me was full of lice! He was collecting figures about the vital statistics of lice, while providing the necessary nourishment for the parasites on his leg. Here was the true spirit of the research worker.

How we can persuade more people to become interested in the study of Nature is a question we ought all to ask ourselves. There is much educational and propaganda work to be done in this direction. It is rather distressing to think that out of a population of some six million people in the London area, only about 600 are members of our Society.

One of the tragedies of modern civilisation in this country is the urbanisation of education, and the teaching of urban ideas. We need to return to the simple things of the countryside and bring home to city dwellers the wonders and marvels of the fauna and flora of the country, and the many fascinating problems that abound in probing the secrets of Nature.

The study of Natural History enables one to lift the curtain and see the hand of the Great Architect of the Universe. It encourages one's powers of reasoning and satisfies one's sense of the beautiful. It helps one to realise that there is a purpose transcending, though resembling, our own purposes everywhere manifest. It brings home to us the unity and the beauty of the world in which we live, where the dead forces feed the energies of life.

As Charles Darwin said, "A good observer makes a good theorist, and field work is all important in extending our knowledge." It is for this reason that I look upon Field Meetings as a vital part of our activities, and urge you to give them your fullest support.

I hope that before the year is out peace may be restored and that we shall be able to resume our normal activities.

In the meantime I thank you for re-electing me your President, and would appeal to one and all to do your best to keep the Society and all it stands for alive.

It is my hope that you may derive pleasure and consolation from the study of Nature in these trying times.

J. B. FOSTER, *President*.

Archæological Inspection.

By G. J. B. Fox.

THE CHAPTER HOUSE, WESTMINSTER ABBEY.

Visited 15th April 1939.

IT was the intention of Henry III that Westminster Abbey and its Chapter House should be of superlative beauty. Matthew Paris states "reædificatur ecclesia Westmonasterialis sumptibus. . . . ædificavitque ibidem dominus rex capitulum incomparabile" (*Historia Anglorum*, III, p. 318). This fact is mentioned under the date of 1250. Dean Stanley says that "its structure implies the extraordinary care and thought bestowed upon it" (p. 371). Sir Thomas Jackson lays it down that the Chapter House with its beautiful vestibule and sculptured decoration is the finest example of the (octagonal) type, and when the paintings on the wall, of which only faint traces remain, were perfect, it must have been superb. It still retains its original pavement of encaustic tiles (*Goth. Archre.*, II, pp. 40-41). The work was executed by Alberic under the direction of the King's Chief Master (Lethaby, *W. A. R.*, pp. 130-1).

"It has three peculiarities each shared by only one other building of the kind in England. It is, except Lincoln, the largest Chapter House; it is, except Wells, the only one which has a crypt beneath it; it is, except Worcester, the only instance of a round or octagonal Chapter House in place of the rectangular or longitudinal buildings usually attached to Benedictine Monasteries" (Stanley, p. 372).

It appears to be the only survivor of the London Monastic Chapter Houses; it escaped the fate of the frater, St Katharine's Chapel, etc., when at the Dissolution of 1540 the "buildings became in great part the property of private individuals . . . the Protector Somerset was believed to have meditated the demolition of the Church itself." Some authorities state that the present Chapter House is on the site of that attached to the Confessor's Church (Hiatt, p. 119; Hare, p. 83; *O. and N.L.*, III, p. 451); this is inaccurate; a comparison of the plans of the Confessor's and Henry III's Abbeys shows that the older Chapter House was entered direct from the cloister, whereas the latter is approached by outer and inner vestibules; moreover, Henry's south transept extended over the site of the Confessor's Chapter House, and remains of the latter were found at the recent search for Spenser's tomb (*Times*, 22nd November 1938).

The approach to the outer vestibule from the east walk of the cloister has two pointed arches with foliage sprigs in the hollows, and moulded labels with head stops; these arches are included in a wall-arch of two orders, the outer has foliage and small figures showing the stem of Jesse; the tympanum had a foliage diaper; three pedestals supported two angels and the Virgin Mary with the infant Christ (now mutilated). It was originally painted blue and vermillion, and gilt (Lethaby, *W. A. R.*, p. 121); the sub-arches were decorated with white foliage on red ground, and gilt flowers (Lethaby, *W. A.*, p. 242).

The outer vestibule of two alleys shows three bays west to east, and two north to south, divided by a range of Purbeck columns with moulded caps and bases; the vaulting is quadripartite: on the north side the bosses are original and very fine, those on the south are Scott's restoration; the pavement of the north alley is original, worn by the feet of the monks; on the north a doorway leads to St Faith's Chapel (formerly the Revestry); on the south another doorway led to the undercroft of the dormitory; this door had been covered with the skin of a robber: the capitals and bases are damaged by the use of melted lead poured between the joints. The two alleys were separated (after the Reformation) by a brick wall, removed by Scott, the south alley being used as a wine cellar; Washington Irving (*The Sketch Book*) relates how he entered the Library by a staircase from this alley.

The inner vestibule is entered by two doorways with moulded jambs with foliage sprigs. It is loftier than the outer vestibule and has steps leading to the Chapter House; it has two bays with quadripartite vault and Purbeck shafts. The west wall has an arch of three orders, with foliage, and a wall arcade of three arches and corbels for figures; the north wall has lancets lighting St Faith's Chapel; the south wall has a lancet and a window of three lights (restored). On the north side is a Roman sarcophagus found in 1869 on the north side of the Nave, with an inscription to the memory of Valerius Amandinus, stating that it was made by his two sons (IVc.); it was reused in Saxon times, and a cross carved in relief on the lid. Over it is a painting of the wooden effigy of William de Valence in St Edmund's Chapel (d. 1296).

The entrance to the Chapter House itself is under an arch with two subarches, with bands of foliage and small figures, flanked on interior by a wall arch each side; in the tympanum in a circle is a figure of Christ (by Scott), flanked by the Annunciation (the Archangel Gabriel and the Virgin), and censuring angels. (Scott is considered to be in error in inserting the figure of Christ: perhaps open tracery existed, but had been cut away; Lethaby, W. A. R., pp. 115-6.) Scott has told how he found the statue of the Virgin:—"I was one day on the top of one of the presses (over the entrance), and on venturing to pull away an arris fillet which closed the crevice between it and the wall, I perceived the top of an arched recess behind the press, and on looking down into it, I saw some round object of stone in the recess below. My curiosity being excited, I let down into it by a string a small bull's-eye lantern, when, to my extreme delight, I saw that the mysterious object was the head of a beautiful full-sized statue in a niche. Permission was speedily obtained for the removal of the press. The statue proved to be a very fine one of the Virgin, and in the spaces adjoining were angels censuring. I afterwards found that it formed part of an Annunciation, the angel having been on the other side of the door. This last-named figure has, however, been long since removed into the vestibule. Its wings are gone, but the mortices into which they were fixed remain" (*Gleanings*, p. 41). On the south side of the entrance were buried in a marble tomb, Sebert, a supposed founder of the Abbey and King of Kent; Ethelgoda, his wife; Rricula, his sister; Edwin, abbot and friend of Edward the Confessor; Hugolin, the Confessor's Chamberlain, and Sulcard, an Abbey historian; later, also two children of Edward III; it had an inscription and verses in Latin (Stanley, p. 371; Clayton, p. 53).

The Rev. M. E. C. Walcott in *Gent. Magazine* of January 1866 gave a depressing picture of the interior. "It is a disgrace to our capital . . . it has been deliberately converted into an almost shapeless ruin. The visitor to London, or the oldest inhabitant who passes up the narrow alley which leads to Poet's Corner, as he passes a blank wall, corroded and begrimed with smoke, pierced with a shabby doorway, would hardly believe that on the other side lies a Chapter House, the gem of such structures, once as magnificent as those of York and Lincoln, Salisbury and Wells. We well remember our first impression on entering it some twenty years ago. . . . A gloomy interior, with ugly windows, walled up or thick with smoke and dirt; detestable little wooden partitions, bulkheads, presses, cupboards, closets, shelves, monstrous staircases, galleries worthy of a little Bethel in the meanest byelane of London; a foul timber roof, lumber, packing cases, parchment heaps and other rubbish; a floor of planking deep in dust, and in the centre a solitary memorial of the grand past, a tall pillar of clustered shafts, its head lost in the ceiling, and its base concealed by a circle of book ledges . . . by the base neglect and vandalism of the last century, all grace, delicacy and refinement have been converted, simply by ill-usage and barbarism, into decay, mutilation, disfigurement, and positive ruin" (pp. 2-3).

USE OF THE CHAPTER HOUSE.

After morning mass the monks took their seats, the juniors on the lower bench, the Abbot and four Priors in the east stalls; the martyrology for the day was read, followed by psalms and collects. etc., and briefs of the deaths of monks in other monasteries, the duties of certain monks, and a sermon. The "spies of the cloister" announced any delinquencies they had seen; any monk made any accusations; culprits were punished, generally by flogging. Finally business was then transacted, such as charters, briefs, etc. "It is the house of confession, of obedience, mercy, forgiveness, of unity, peace and tranquility. where the brethren make satisfaction for their faults. French was spoken. Latin being translated into that language for the benefit of the simple; English was not to be used" (Ware). The Chapter House was used by the House of Commons, from the XIIIc. till the death of Henry VIII on 28th January 1547, when the Chapel of St Stephen was then handed over to them; afterwards it was converted into an office for storing official documents (including Domesday Book) till 1865, when they were removed to the Record Office in Chancery Lane. Great damage to the building had been done, as told by Walcott; meetings were held for its restoration, and Parliament granted the necessary sum in 1865, when Scott commenced its restoration. The original vaulting, which was flat. was removed about 1740; the present conical vaulting was put up by Scott; it is supported by a central pillar, and capital (both modern); iron hooks in the latter, and in the angles of the bays, held iron bars for security, as in Henry III's portion of the Church; the vault is also held up by iron rods on the upper side. The external flying buttresses probably date from XIVc. The windows are of four lights, supporting a central circle; they had been filled up, but have been restored from the blind window against the wall of the south transept. The window over the entrance was rebuilt by Scott of four lights; it had originally that number of lights, but was damaged in the fire of 1298, and was replaced by Abbot Byrcheston with a five-light window. The glass is modern, following a scheme devised by Dean Stanley.

The floor is still paved with the original tiles, with some modern replacements; they had been protected by a wooden floor, and form a unique collection, a survival from c. 1253 (another tiled floor was at Chertsey Abbey, c. 1270, now broken up; both sets were perhaps designed by the same artist. Lethaby, W. A. R., pp. 112-3). They are laid between rows of edging tiles running east and west, except the triangular space at the south-west, and a strip at the east end; the laying commenced on the north with "window" tiles; inscriptions and pictures occur on the south; the base of the central pillar is ringed with tiles placed on edge. "The presence of the fish, the portraits, hunting scenes, etc., and the inscriptions demand the supposition that, if the manufacture was not local, the subjects are in part topical" (Clayton, p. 48). The designs include a fish, in token of an annual tithe of salmon paid by fishermen; a rose window; a fleur-de-lys; a fox and a cock; two leopards addorsed; three leopards with centaurs; minstrels; hunting

scenes; Henry III; Queen Eleanor; Abbot Crokesley; Edward the Confessor and St John; two Latin inscriptions, one of four lines, and one of two lines. The arcading below the string course shows diaper work of roses (one spandrel has a trellis of roses); trefoiled arches with Purbeck shafts with moulded or floriated capitals (one shows dog-tooth), and small heads, mostly new. The mouldings and diaper were originally coloured (black, blue, vermillion) and gilt; many capitals are new. The stalls at the east end are richer, and the arcade stands clear of the wall, the caps being bonded to it (Lethaby, W. A. & W. A. R.; Noppen). The panels of the arcade contained a series of paintings, of which portions remained and have been recently cleaned; the finest are in the five bays at the east and adjoining bays; a series of scenes from the Apocalypse begins at the north-west, and ends at the south-west; at the east is a Doom with angels in the heads of the trefoils; the paintings were given by John of Northampton, a monk at Westminster (1475-1525). Below the north-west series are an "ostrych," a "reynder," a "ro," a "wilde esse," etc., of a later date (c. 1475-1525). The finest is the Doom showing Christ sitting on an arc of the Heavens, before a curtain held by angels; seraphim; the Virgin and St John; groups of figures of the Blessed (the Damned have perished). The Apocalypse originally showed 96 scenes, each with a parchment label. Below the Chapter House is a crypt, accessible only from the Church, with walls 17 ft. thick, and a recess for an altar. In 1303 Edward I's treasury was burgled to the amount of £100,000; opinion is divided as to whether the treasure was stored here or in the adjoining Chapel of the Pyx.

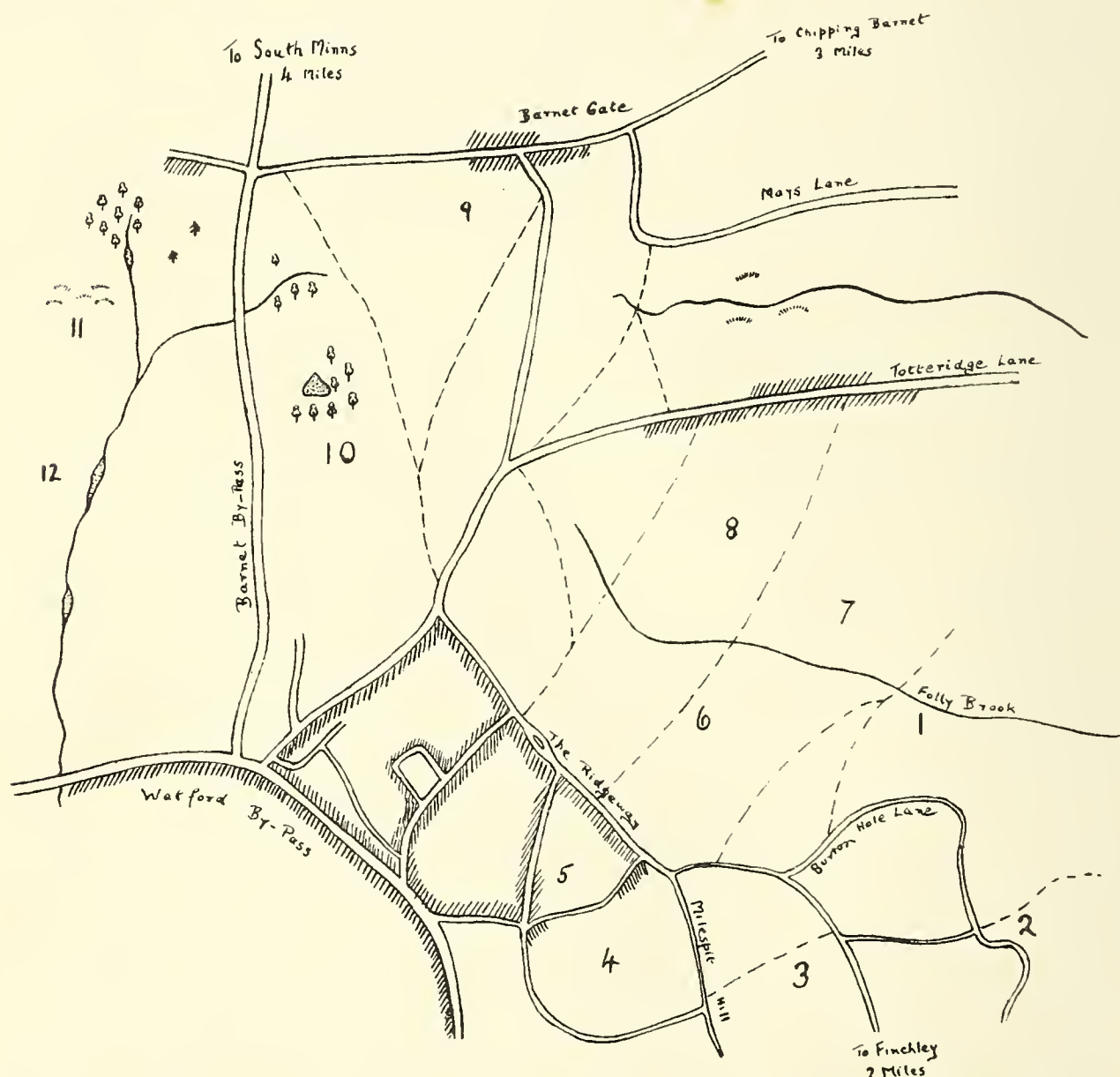
The Small-Mammal Population of Mill Hill.

WITH BRIEF NOTES ON THE REPTILES AND AMPHIBIANS.

By F. L. M. DAWSON, Gonville and Caius College, Cambridge.

LOCALITY.

THE area surveyed is roughly three miles square, lying about half-a-mile to the N.W. of Mill Hill, and the records given are based upon collections and observations made by Mr P. G. Troughton and the writer in the years 1933-38. The areas numbered on the sketch-map have been "covered" by rat and mouse traps with some degree of thoroughness. Most areas consist of pasture and hedgerow only; area 1 includes a small river; areas 10 and 11 include brook, pond, wood, rough pasture and heath; area 3 has been entirely built over in the last few years.



MILL HILL, showing localities 1-12 referred to in text, cross-shading indicates built-up areas; railways omitted.

DETAILS OF POPULATION.

MAMMALIA.

INSECTIVORA.

MOLE. *Talpa europaea* L. Specimens: one skin, that of an animal caught by hand while sunning itself, and which starved to death in a day, refusing to eat frog meat but taking worms, which were, however, too scarce, it being midsummer. A male. On another occasion a mole was seen climbing an elm tree, and nosing about after food in the bark crevices. Eventually it jumped lightly (?) down from a height of about four feet, and began to burrow. Moles occur throughout all the areas and the interlying country, penetrating far into the gardens of the built-up area. Specimen came from area 5.

COMMON SHREW. *Sorex araneus castaneus* Jenyns. Specimens: eleven skins, at least one representative from each of the areas, preserved out of thirty-two trapped. There is little doubt that this species occurs in all the interlying country as well. This shrew is essentially a hedgerow animal, and was never found attempting to colonise or survive in the built-up area by inhabiting gardens. All the captures were adult males, and their gonads gave no clue to the existence of any definite breeding season. How do shrews get through the winter? The stomach contents of the examples obtained during that time were never recognisable. In Mill Hill this species shows a darker coloration than it does in other localities, nearly as dark as a mole, but two colour varieties were obtained, which suggests that these phenomena are not uncommon. One had a light fawn-coloured head, the other was a beautiful silver grey with white whiskers and pink feet. These specimens appear to bear out the theory that only the first season animals develop a heavy growth of winter fur. Once in April a shrew darted out and took the bait of a trap that had just been set. Its gut was found to be quite pink and empty.

PIGMY SHREW. *Sorex minutus* L. Specimens: five skins, preserved from nine specimens trapped in areas 1, 3, and 10. All were males, but one caught on the third of April was definitely immature. On one occasion three adults were caught in three adjacent traps, which is curious considering the relative rarity of the species. There is no doubt that this species is less thickly distributed than *S. araneus*, though equally widely. Whether it occurs in any of the other areas it is impossible to say. There is some indication that *S. minutus* is more of a meadow species, using runs in the grass far from any hedge, but such a statement cannot have much value owing to the small number of specimens upon which it is based. A member of this species was the only animal ever to be caught in a primitive cage-pattern mouse-trap. The shrews of Mill Hill show the normal behaviour of Insectivora in responding only to protein baits, e.g., cheese, bread, chocolate. Contrast the African *Crocidura flava* and *Myosorex sclateri*, which can be caught on carrot bait.

HEDGEHOG. *Erinaceus europaeus* L. Specimens: one skin preserved out of three individuals (all males), trapped. All captures in a

shrubby in area 5. August 1934, January 1935, November 1935. Note awakening during hibernatory period. The usual crop of fleas and ticks present. There is reason to believe that this species does not occur in any of the other areas.

CHIROPTERA.

PIPISTRELLE. *Pipistrellus pipistrellus pipistrellus* (Schreber). Specimens: one skin; animal killed on car windscreen. Most of the bats seen throughout the ground covered appear from their size, occurrence, and flight, to be of this or of closely related species.

CARNIVORA.

FOX. *Vulpes vulpes crucigera* (Bechstein). Specimens: one skull, from skeleton found with rotting skin attached in middle of birch wood, area 11. Unmistakable tracks found occasionally round the pond in that area. The Enfield Chase Foxhounds hunt the country to the N.E. No evidence for occurrence of this species outside area 11.

WEASEL. *Mustela nivalis nivalis* L. Specimens: none. Tracks not infrequently observed round pond in area 11 and a specimen was hunted into cover by a dog from the middle of a rough pasture in that area. It barked shrilly as it doubled and jinked about, travelling at over ten m.p.h. Tracks seen in area 10 may have belonged to this or to the next species. A specimen is said to have been seen in area 5.

STOAT. *Mustela erminea stabilis* Barr.-Ham. Specimens: none. Tracks usually to be found in areas 10 and 11. The tracks of a party of three stoats hunting a rabbit were followed in the snow from area 9 to area 10, a distance of half a mile, after which they entered a wood where there was no snow on the ground. Specimens seen during the day on several occasions.

RODENTIA.

RABBIT. *Oryctolagus cuniculus* (L.). Specimens: two skins. This animal is common in areas 1, 2, 3, 9, 10, 11. Definitely absent elsewhere. Rabbits hug the woods closely so as to avoid being coursed by dogs or foxes. Only in area 10 were any burrows formed, the rabbits elsewhere lying out in the hedgerows.

BROWN HARE. *Lepus europaeus occidentalis* de Winton. Specimens: none. Hares are not uncommon at all times of year in areas 9, 10, and 11. They also occur as occasional visitors in most of the other areas, coming remarkably close to built-up areas at times.

BANK-VOLE. *Clethrionomys glareolus britannicus* (Miller). Specimens: eleven skins (two females) preserved out of forty-seven (five females) trapped. Areas 1, 6, and 10. A female containing three fetuses was trapped in April, and quite young individuals in August, so breeding habits appear to resemble those of *Apodemus*. This vole is typically a hedgerow animal and is widely distributed, probably occurring over a large part of the country lying between the areas. It burrows, and also makes shallow runs in the grass, but is never found far out in middle of a meadow. Both this and the next species are to some

degree diurnal, and become more so in captivity. Their eyes are much smaller than those of *Apodemus*, but larger than those of the African fieldmouse *Rhabdomys pumilio*, which is exclusively diurnal. This species wanders far less than *Apodemus*. Thus, an acre of land will contain three or four centres of population outside of which a capture is unusual. *Clethrionomys* is omnivorous; in a state of nature it indulges freely in insects, and when it gets the chance is cannibalistic. It will eat shrews out of traps--a diet at which any carnivore will turn up its nose. Voles in general seem less liable to parasitic infestation than mice.

WATER-VOLE. *Arvicola amphibicus amphibicus* (L.). Specimens: none. Tracks were once observed on the tributary entering the Deans Brook from the East, and a keeper in area 12 alleges that this species is sporadically common along the waterside during the winter. Presumably it makes attempts to colonise until wiped out by a fresh wave of rats.

SHORT-TAILED VOLE. *Microtus agrestis hirtus* (Bellamy). Specimens: two skins, one a female, preserved out of two males and a female trapped. Area 10, January. This species may occur in isolated patches among the interlying country, but it is certainly not common. It is typically an inhabitant of open meadows with long grass, among which it forms runs and nests. The diet appears, from the uniform green tint of the gut, to consist even in mid-winter of grass alone, though the animals are only too glad to eat anything else given the chance and become very lively on a grain diet in captivity. None of the voles seems to become torpid in winter, as is said to occur further North.

LONG-TAILED FIELD-MOUSE. *Apodemus sylvaticus sylvaticus* (L.). Specimens: ten skins, two being females preserved from twenty-nine (four females) trapped. From all areas except 12. Five foetuses were found in a specimen trapped in April, and young examples were obtained in August, so it would appear that breeding continues at least during all the summer months. This mouse seems to occur in absolutely every type of environment except indoors, being found in gardens more than a mile away from any open country. It is the dominant rodent everywhere except in open meadows, where it is less frequent. It is possible that the very large eyes are correlated with a nocturnal habit; the animal was never observed to be active in the daytime, even in captivity. The proportionately long caecum as compared with the house mouse is noteworthy. Specimens are frequently infected with a variety of acarine, insect, platyhelminth, nematode, and other parasites. The animal is omnivorous.

H. & B.	Typical specimens :		
	Tl.	Hf.	Ear.
96	86	21	11
90	85	21	12
100	82	22	12
98	85	20	11
Specimen approximating to <i>wintoni</i> :			
107	93	24	13

Of all the small mammals, this has the greatest locomotive ability and consequent tendency to roam. Thus, if a trap be set in a barren-looking spot where there are no obvious holes or runs, there is very little chance of a shrew, a slender chance of a vole, and a good chance of a field-mouse being caught.

YELLOW-NECKED MOUSE. *Apodemus flavicollis wintoni* (Barr. Ham.) Specimens: one skin from area 10 shows a remarkable approximation to this species. The chestnut breast mark is expanded into an orange cross which, however, fails to connect with the colour of the upper surface by a distance of about 7 mm. on each side. There is a much more definite red patch on each flank than the next species usually shows; the size is also greater and it is unfortunate that no specimens were available for counting of the caudal vertebrae.

BROWN RAT. *Rattus norvegicus* (Erxleben). Specimens: one skin, preserved from five specimens trapped. All males. Animal common in areas 1, 2, 11, and 12. Not found in woods or the wilder country, except along the waterside, where, as of course in the built-up area, it is universal. Heaviest specimen weighed 520 gms. Probably the railway and warehouse rats are bigger. The specimens obtained were country rats caught when trying for water voles.

HOUSE-MOUSE. *Mus musculus* L. Two typical specimens trapped a hundred yards away from any building.

GREY SQUIRREL. *Sciurus carolinensis* Gmelin. Specimens: one skin, obtained with a shotgun. Infested with fleas and ticks. Fairly common in areas 2, 4, 5, 9, 10, and 11. Probably does not occur outside them. Does not hibernate. Has been known to eat small mammals out of traps.

REPTILIA.

SQUAMATA.

COMMON LIZARD. *Lacerta vivipara* Jacquin. Occurs on the heath in area 11, but not observed elsewhere. May occur in interlying country.

GRASS-SNAKE. *Natrix natrix natrix* (L.). Observed in areas 5, 6, 9, 10 and 11. Probably occurs in interlying country, and is a prominent feature of the fauna in the summer, when it may wander into gardens.

VIPER. *Vipera berus berus* (L.). Occurs rarely on the heath in area 11. Probably absent elsewhere.

AMPHIBIA.

CAUDATA.

SMOOTH NEWT. *Triturus vulgaris vulgaris* (L.). Occurs in ponds in areas 10, 11, and 12. Probably occurs elsewhere wherever there is suitable water, as may other newts.

SALIENTIA.

COMMON FROG. *Rana temporaria temporaria* L. Occurs on damp ground throughout the areas and probably most of interlying country.

COMMON TOAD. *Bufo bufo bufo* (L.). Observed only in area 11, but may occur comparatively sparsely in other areas and interlying country.

CONCLUSION AND REMARKS.

These results contain nothing at which to be surprised. They show an incidence of species very much as might be expected with regard to the "degree of urbanisation" that has taken place. The Long-tailed Field Mouse is more adaptable than any other rodent or insectivore with the exception of the Mole. The Carnivora fail to maintain themselves anything like so tenaciously. Absentees from the list are few; it is not possible to depend on the presence of the Badger and Otter in every nine-square-mile section of England. The Dormouse and Harvest Mouse, once universal, have become increasingly rare in the last few decades, and the Water Shrew has always been markedly patchy in its distribution. The possibility of these forms occurring undetected cannot be ignored, but in the face of a hundred and thirty-two captures of other species in every type of habitat and on every variety of bait, it must be admitted that any such species is very much less common.

The incidence of the Bank and Field Voles is worthy of mention; not only in Mill Hill, but in other parts of the British Isles it has been found that the Bank Vole is far commoner and more widely distributed than the Field Vole, in direct conflict with the statements of many text books. Finally, the enormous preponderance of males over females trapped, in all species except the Field Vole, cannot pass without remark. On a mammal survey undertaken by the writer in South Africa it was far less marked, twenty-four out of fifty-two captures being females.

Notes on a Tame Blackbird.

By C. L. COLLENETTE.

THE garden at Richmond, Surrey, in which the following notes were made consists of a grass lawn 30 yards by 12 yards in extent, surrounded by flower beds and an old seven foot brick wall. Trees overhang this wall at several places, while on each side and at the end are similar gardens.

Early in April 1938 a commotion was noticed in a holly tree near to our window. A cat was climbing the tree, with a newly-made Blackbirds' nest as the objective. The placing of a collar of wire netting round the trunk ensured the future security of the nest, but the birds unfortunately deserted it.

In the first week of May, during the very dry weather which then prevailed, a piece of ground in the garden was being forked over, while at the same time a male Blackbird was searching without much success for food on the lawn. A large worm was turned up and thrown as far as possible towards the bird, which flew off but returned and annexed it. During the afternoon several more worms were offered and accepted, most of them being carried into a neighbouring garden, where he seemed to be feeding his mate on the nest.

Throughout the rainless period which followed the bird was occasionally fed with worms and slowly became tamer, until he approached to within a couple of yards. He was now appearing on the lawn whenever I came out of the house, and I even noticed a few hesitating steps in my direction before a worm was found. After a shower of rain the bird preferred to hunt for himself, and food offered to him was often ignored.

On the 3rd of June I discovered that the bird was attending to newly-hatched young in a nest at the top of a thick hawthorn at the end of the garden, and evidently the earlier nest in the neighbouring garden had come to grief. If, as was most probable, the April nest belonged to the same pair, this was the third attempt at nesting. He was now searching for food without ceasing, and I commenced seriously to study his actions and behaviour. By attending to his wants for a few minutes daily, I induced him in less than a week to take food from my outstretched hand, held close to the ground. As insects for feeding the bird were not easily obtainable in numbers, I offered sultanas, which were instantly accepted. The bird considered three to be a beakful but, after picking up two, had the greatest difficulty in closing his mandibles on the third. When this had been achieved, they were carried off for a short distance and carefully broken up. The sultanas were then given to him in small pieces, which greatly increased the speed of visits to the nest.

Although large worms had been accepted by the bird for his own and his mate's use during the drought, they were now inspected with head on one side, perhaps pecked once or twice, and afterwards ignored. My material for feeding consisted of the aforesaid sultanas, small worms, yellow millepedes, woodlice, and small ground beetles (Carabids). When several invertebrates and a sultana were offered at once on my hand, the sultana was taken first, possibly by reason of its greater bulk, and this experiment was repeated often enough to show that the selection was not accidental. The millepedes were also much favoured.

The bird at first preferred to pick up food from my hand and retire for a few feet to deal with it, but soon lost almost all fear of me. Watching his actions at such close quarters was exceedingly interesting. Woodlice and beetles were crushed in the beak before being carried to the young. A worm was lifted at one end, crushed and dropped, the process being repeated down the body at intervals until it hung completely limp, after which it was usually broken into pieces. Offered a small slug, he carefully put down his beakful, took the slug and wiped it many times on the grass, swallowed it himself, wiped his beak several times and picked up the beakful again. Four or five slugs at different times were all treated in the same way, and were never carried to the young. A Yellow Underwing moth (*Agrotis pronuba*) with undeveloped wings was accepted, well crushed and taken to the nest.

When watching with concentrated attention he used only one eye, turned squarely towards me, and his acuteness of sight was surprising. At a distance of about nine yards, which I carefully paced out, he was able to distinguish between a small inedible object, such as a stick or

stone, held in my fingers, and a similarly shaped millepede or woodlouse struggling to get free. From about twenty yards, a sultana thrown on the grass, where it was hidden (my usual method of calling him up when he was not very hungry), would bring him without hesitation to the exact spot. He never failed to find, immediately, any sultana for which he set out, and when two were thrown simultaneously to different places, usually retrieved both, but never attempted a third. Again, when I had turned over a forkful of earth and looked very carefully for anything to give him, he would hop to the edge of the disturbed soil, and, after a short stare, sometimes pick up from under my nose two or three small worms which I had missed.

At this period, whenever I walked into the garden, he would first inspect me carefully for a moment and then run straight to my feet at considerable speed, sometimes shivering his wings slightly in the manner of a fledgling asking for food. With other people he was tame, but would not feed from their hands. Occasionally, while standing near to me with food in his beak, he would utter a short phrase of song, *sotto voce*, audible at only a few feet. The feathers on his crown could be slightly elevated, and this may have been a sign of anger, as it was done two or three times when another cock was calling in a neighbouring garden. On one occasion, when the young were still in the nest, I hosed the lawn. Two strange pairs of Blackbirds appeared, and commenced a search for food, but were chased away without a fight. A month later, under similar circumstances, the chasing was only occasional, and the territorial instinct appeared to have decreased.

Three young birds flew from the nest, and my wife and I were called repeatedly to deal with an alarm of "cat." The human neighbours on both sides also co-operated. The birds' "spink-spink-spink," especially noticeable in the evening, is not necessarily an alarm note, but can be worked up by loudness of delivery, rapidity, and almost continuous utterance into an urgent call of danger. The single and very different note, rather quietly uttered, seems to be a warning to the young to remain motionless and quiet.

The young birds at first always remained well above the ground in the branches of trees and bushes, and the acute danger of the ground was illustrated by one which fell or fluttered down before it could properly fly, and was rescued from the possession of a Scotch Terrier and a cat in the course of a single day, luckily without injury.

The cock bird fed the young very close to me, but showed agitation when I caught and handled one. The young were a week to ten days out of the nest before they came freely to the ground. On one occasion a fledgling appeared on top of a bare wall, where it was fed by the cock. At the next visit the parent alighted near to the young bird and exhibited the food—a beakful of sultanas. The fledgling fluttered forward along the wall and was slowly and deliberately decoyed into the small branches of a thick hawthorn, where it was considered to be safer, and was then fed.

Attempts were made to tame the hen bird of the pair, but she usually fed in an adjoining garden, and appeared less often. She approached eventually to within two yards, but was always nervous. While I was feeding the cock, and the hen was also on the lawn, he sometimes hopped a short distance towards her, uttering little "clucks" to which she responded in the same way, and I could only interpret this as an invitation to her to share the meal. Both birds were easily recognisable throughout the period of these notes by reason of small peculiarities of plumage and even of posture and stance.

The young birds "chirruped" throughout the day to show their hunger and whereabouts to the parents, and at least once a cat was guided by these calls, but they were never vocal when the parents had commenced their alarm notes.

The three young birds were safely reared. In July I went on holiday, and on returning could find no trace of parents or young, and they had apparently left the garden.

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The above notes were written a year and a half ago. Since then the author has moved to another part of Richmond, and has spent considerable time in endeavouring to tame another Blackbird. In the early part of 1939, a young cock bird was induced to come for sultanas, and was later seen to feed them regularly to his brood. He and his mate (which was ringed) left with their family in June, and both returned to the garden in September.

During the winter of 1939-40, the cock bird has attended most regularly at the garden door in the early morning. If his ration of sultanas is not forthcoming he flies to a bough close to the door, from which he can command the interior of the room, and gives repeated single "clucks" until fed. As a result of much patient training, he comes to within 9 inches of an outstretched hand, and will enter the open door into the room, but lacks the confidence of the bird described earlier in this article.

The cock birds of which I have been writing, and others in earlier years to the number of three or four, possessed at least one phrase in their song which my wife and I memorised by setting to words. In no case have we heard the special phrase repeated in a subsequent season. I have been unable to find any account of the continuity or otherwise of the same phrases in successive years, and it would seem that this point has not yet been fully studied.

Entomological Notes and Records.

BRITISH BUTTERFLIES IN 1939.

By H. J. BURKILL, M.A., F.R.G.S.

THE number of my correspondents this year has been considerably lessened but I have to thank the following for help which has enabled me to compile the customary synopsis of the season. Misses E. M. Gibson, M. E. Miller, and A. E. Wattson, and Dr K. G. Blair, Messrs G. F. Crowther, R. Cyriax, Major J. C. Eales-White, Dr W. J. Fordham, Dr F. C. Garrett, Messrs K. M. Guichard, G. H. Heath, Dr E. H. T. Hambly, Messrs W. J. Kaye, K. P. Keywood, D. Leatherdale, L. Parmenter, A. Richardson, R. W. Robbins, Brig.-Gen. B. Tulloch, Mr G. Waller, and Dr P. H. Willcox.

The season was not a good one as the weather was generally cold and sunless. The chief feature may be said to have been the plague of larvae of the Large Garden White, which assumed disastrous dimensions in places.

A brief résumé shows that the SATYRIDAE were not generally up to the average numbers. NYMPHALIDAE were fair, with VANESSIDAE on the up-grade. *V. cardui* L. was reported from many districts as far north as Skye (K.M.G.), but it was not a great year for the species. *N. io* L. was more plentiful and is spreading northwards. Dr Garrett says it seemed to disappear 30 or 40 years ago from Northumberland and Durham but has now been seen again in those counties. On 16th September I watched a freshly emerged female feeding on the flowers of *Achillea Millefolium* L. She seemed to be rather below the average size, and the ground colour was more red than crimson, with only the faintest trace of blue on the outer margin of the front "eye" spots and no blue at all on the hindwing spots. This was on Fetcham Downs, Surrey. *P. c-album* L. is holding its own round London and has been recorded in larger numbers in some of its newer districts, but *L. camilla* L. has gone back and was hardly seen in places near London where it was frequent a few years ago. The LYCAENIDAE do not seem to have been up to the average but *C. minimus* Fuessl. was very abundant in one western area and *L. bellargus* Rott. was also common in places after being missed for some years. *L. argiolus* L. is apparently reappearing in London again. PIERIDAE were remarkable for the enormous numbers of *P. brassicae* L., especially in the West of England, where cabbage and turnip fields were defoliated by the larvae. Mr Richardson found the larvae abundant to the north of London, especially in cottage gardens, where he thinks the butterflies are first attracted by flowers and then stay to breed, and so do not oviposit so much in the fields, thus giving a certain amount of immunity to the vegetables there. Parasites are reported to have killed off most of the larvae in many places. A dense colony on a bed of *Tropaeolum majus* at Fetcham was drowned out by heavy thunder rain

on 2nd September. *G. rhamni* L. was fairly plentiful in the spring but larvae were not abundant later on. HESPERIDAE were locally plentiful. Dr Garrett reports *O. venata* Bremer & Grey near Darlington, the first record for many years.

Miss Miller attributes the disappearance of larvae of *N. io* and *A. urticae* to a pair of Butcher Birds which frequented her garden. She has found the larvae impaled in the "larders."

ASILIDAE (" ROBBER-FLIES ") IN SURREY.

By L. PARMENTER and H. OLDROYD.

On account of their relatively large size and interesting habits, flies of the family Asilidae make a most attractive group to study in the field, as is shown by the stimulating work of Melin on the Swedish Asilidae. In this country, Dr B. M. Hobby has collected and published a good many records of the prey of British Asilidae, but many interesting facts about the behaviour of these predatory flies, as well as details of their life-histories, remain to be discovered. The twenty-five British species can easily be named from Hobby's key, and much information about their habitats and distribution is given by Verrall and Melin, whose works include useful illustrations.

In the hope of interesting more members in this group of flies we have compiled a list of the Asilidae occurring in the county of Surrey; the list is made up from specimens collected by members of the Society, together with specimens in the British Museum (Nat. Hist.) [marked †] and those listed by E. E. Austen in the *Victoria County History of Surrey*, vol. 1, 1902 [marked *]. Collectors' names are given in full at the first mention, and afterwards indicated by initials. Most of the species listed are represented in the Society's collection of British Diptera.

It will be seen that the list contains seventeen names. Of the remaining eight British species two—*Laphria flava* and *Rhadiurgus variabilis*—are not known to occur south of Scotland, five—*Laphria gilva*, *Pamponerus germanicus*, *Machimus rusticus*, *Epitriptus arthriticus*, and *Neoitamus cothurnatus*—are rare or extremely local, while *Philonicus albiceps*, though by no means rare, is mainly to be found in sandy areas near the coast.

Leptogaster cylindrica De G. Beddington Sewage Farm, Bookham Common, Limpsfield Common, Little Bookham, Mitcham Common, and Wisley, 11.vi-14.viii (L. Parmenter); Mickleham, 21.vi.1890 (T. R. Billups)*; Chobham, 29.vi.1895 (A. Beaumont)*; Oxshott, 11.vii.1891 (T.R.B.)*; Merton Park, 14.vi.1915 (J. Waterston)†; W. Shere, 18.vi.1921 (J.W.)†; Dorking, 10.v.1897 (F. Milton)†; E. Sheen, Pulwell Meadows, vi.1921 (A. M. Low)†; Chipstead, 10.viii.1929 (S. J. Turpin)†; New Malden, 12.vii.1929 (R. L. Coe)†.

Leptogaster guttiventris Zett. Byfleet, 14.vii.1935 (L.P.); Ripley, 14.vii.1929 (R.L.C.)†.

Isopogon brevirostris Meigen. Box Hill, 6.vi.1891 (A.B.)*; Guildford, 2.vi.1922, and Albury, v.1919 (G. C. Champion)†.

Lasiopogon cinctus Fabr. Oxshott, 10.iv.1938 (K. M. Guichard); Oxshott, 17.v.1896 (W. R. O. Grant)†; Woking (G.C.C.)†; Esher Common, 8.v.1938 (H. Oldroyd)†; Byfleet, 22.v.1938 (H.O.)†.

Dioctria atricapilla Meig. Beddington, Byfleet, Limpsfield Common, and White Downs, near Dorking, 17.vi-9.vii (L.P.); Oxshott, 9.vii.1898 (A.B.)*; Woking, vi.1922 (G.C.C.)†; New Malden, 29.vi.1932 (R.L.C.)†.

Dioctria baumhaueri Meig. Byfleet, 28.vi.1936 (C. L. Collenette); Beddington, Limpsfield Common, Mitcham Common and Oxshott, 12.vi-30.vii (L.P.); Box Hill, 5.vi.1892 (A.B.)*; Mickleham, 21.vi.1890 (T.R.B.)*; Oxshott, 11.vii.1891 (T.R.B.)*; Woking, vi.1922 (G.C.C.)†; Oxshott, vi.1929 (G. Nixon)†; Oxshott, 12.vi.1938 (H.O.)†; New Malden, 12.vii.1931 (R.L.C.)†.

Dioctria linearis Fabr. Bookham Common, 11.vi.1939, and Oxshott, 7.vii.1936 (L.P.); Box Hill, 5.vi.1892 (A.B.)*; Selsdon, vii.1931 (R.L.C.)†.

Dioctria oelandica L. Bookham Common, 11.vi.1939, and Ranmore Common, 23.vi.1935 (L.P.); Woking (G.C.C.)†; Claygate, 11.vi.1932 (R.L.C.)†.

Dioctria rufipes De G. Epsom, 10.vi.1939 (P. W. E. Currie); Coulsdon Common, 3.vi.1939 (H. J. Burkill); Byfleet, Beddington, Limpsfield Common, Mitcham Common, and White Downs, Dorking, 22.v-27.vi (L.P.); Mickleham, 21.vi.1890 (T.R.B.)*; Claygate, 11.vi.1932; New Malden, 28.vi.1932; Selsdon, 4.vi.1931 (R.L.C.)†.

Dioctria cothurnata (reinhardi) Meig. Oxshott, 6.vii.1895 (A.B.)*.

Laphria marginata L. Ashtead, 10.viii.1929 (S.J.T.)†.

Asilus crabroniformis L. Byfleet, 6.ix.1931 (R.L.C.)†.

Neoitamus cyanurus Lw. Horsley, Limpsfield Common, and Oxshott, 7.vii-20.viii (L.P.); Oxshott, 16.vi.95 (W.R.O.G.)†; Selsdon, 24.ix.1929 (R.L.C.)†; Guildford, 1.vii.1935 (N. H. Bennett)†; Byfleet, 9.viii.1939 (H.O.)†.

Dysmachus trigonus Meig. Limpsfield Common and Mitcham Common, 13.vi-6.vii (L.P.); Box Hill, 13.vi.1891 (A.B.)*; Mickleham, 21.vi.1890 (T.R.B.)*; Oxshott, 9.vi.1895 (Grant and Yerbury)†; Byfleet, 22.v.1938 (K.M.G.)† and 4.vi.1939 (H.O.)†.

Eutolmus rufibarbis Meig. Byfleet, 5.viii.1931 (R.L.C.)†.

Machimus atricapillus Fall. Effingham, 21.vii.1934, and Hogs Back, 31.vii.1937 (H.J.B.); Headley Heath, Horsley and Limpsfield Common, 21.vii-6.ix (L.P.); Box Hill, 18.viii.22 (F. W. Champion)†; Claygate, 18.viii.1929, and Selsdon, 24.ix.1929 (R.L.C.)†.

Epitriptus cingulatus Fabr. Limpsfield Common and Wisley, 25.vii-8.ix (L.P.); Byfleet, 5.viii.1931 (R.L.C.)†.

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NOTES ON TWO SPECIES OF DOLICHOPODIDAE [DIPTERA].

By L. PARMENTER.

Hercostomus nigripennis FLN. VISITING FLOWERS OF PIG-NUT,
Conopodium majus LORET.

On 25th June 1939 I found several flower-heads of the Pig-Nut, *Conopodium majus* Loret, growing at the edge of the path bordering Area C on Limpsfield Common, Surrey, covered with a small Dolichopodid fly which proved to be *Hercostomus nigripennis* Fln. Of a sample twenty taken, fifteen were males and five females. They all appeared to be sucking the nectar which in Umbelliferous plants is very accessible to short-lipped flies. I have not been able to find a previous record of this fly visiting the Pig-Nut but Richards records it visiting abundantly the flowers of *Potentilla erecta* Hampe.

As Dolichopodid flies are not often seen on flower-heads I should be glad to hear of other observations. Those known to me are, in Britain: Morley and Atmore recorded *Poecilobothrus nobilitatus* L. sucking *Angelica sylvestris* L. and recently Andrews found many *Orthochile nigrocaerulea* Latr. on flowers of the Ox-Eye Daisy, *Chrysanthemum Leucanthemum* L. In Germany, Knuth and Müller record *Dolichopus aeneus* Deg. on *Ranunculus acris* L., *Carum Carvi* L., *Sium latifolium* L., *Anthriscus sylvestris* Hoffm., *Galium mollugo* L. and *Galium verum* L. × *G. mollugo* L., *Dolichopus brevipennis* Mg. on *Anthriscus sylvestris* Hoffm.; *Dolichopus plumipes* Scop. on *Parnassia palustris* L. and *Achillea Millefolium* L.; *Gymnopternus chaerophylli* Mg. on *Aegopodium Podagraria* L.; *Gymnopternus germanus* Wied. on *Conium maculatum* L. and *Torilis anthriscus* Bernh.; *Gymnopternus nobilitatus* L. on *Matricaria Chamomilla* L. and *Neurigona quadrifasciata* F. on *Linnaea borealis* L.

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Syntormon pumilus MG. (PARENT) TAKEN IN JANUARY IN SURREY.

On 1st January 1939 I took a male of this species (= *denticulatus* Zett. of Verrall) on bracken in the open gorse tangle in the north-west corner of Area Ka, Limpsfield Common, Surrey. I have not been able to find a previous record of this species having been seen in this month of the year, although Stackelberg states that some *Syntormon* over-

winter, as do *Hydrophorus* and *Campsicnemus* in this family. There are no records of *Syntormon* in E. E. Austen's list of Diptera in the *Victoria County History of Surrey*. In the summer I have taken *pumilus* on the mud shore of the little pond lying to the south-east of the common quite a mile east of the spot where the winter specimen was captured.

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Plant Gall Records for 1939.

Compiled by H. J. BURKILL, M.A., F.R.G.S.

THE notes will be shorter than usual as, firstly, the year was not a good one and, secondly, compression is desired under present conditions.

HYMENOPTERA.

CYNIPIDAE.

Mr Niblett has shown (*Entomologist*, July 1939) that the flies I sleeved in 1936 under the impression that they were *Andricus amenti* Gir. were really *A. xanthopsis* Schl., and that this latter is the alternate form of *A. glandulae* Schenck.

Galls of *Diplolepis verrucosa* Schl., *Andricus cirratus* Adl., *A. pilosus* Adl., *A. circulans* Mays, *A. callidoma* Htg., and *A. marginalis* Schl. were taken at various Plant Gall Section Field Meetings; the insects being successfully bred from the four first named.

Experimental work on alternating generations gave no results, all the sleeving attempts being unproductive, but when I placed some freshly emerged flies of *Cynips kollari* Htg., bred from galls on *Quercus robur* L., on the trunk of a *Q. cerris* L. to see if I could induce gall formation on that species, three of the four flies flew at once to branches of *Q. robur* further away, thus showing a recognition of the usual host plant by what we can only regard as a highly developed sense of smell.

CHALCIDIDAE.

Isosoma graminicola Gir. was locally plentiful on *Agropyron repens* Beauv. in the autumn, while the same host plant bore a number of *Isosoma* sp. galls in the stem, similar to the No. 4 in last year's list. Other galls of this species were also found on *Arrhenatherum elatius* Mert. & Koch.

DIPTERA.

CECIDOMYIIDAE.

Cytisus scoparius Link, galled by *Perrisia tubicola* Kieff. and *Asphondylia sarothami* H. Lw. Both Worms Heath.

Spiraea ulmaria L. Petals on one side of the buds thickened, swollen and distorted, bright crimson in colour, enclosing a pale orange brown larva. Only two affected plants found. Shropshire.

Silaua flavescens Bernh.—*Trotteria umbelliferarum* Kieff. Fetcham, Surrey. Umbellifer galls were very scarce.

Achillea millefolium L.—*Rhopalomyia millefolii* H. Lw. was not reported, but the larger galls at the base of the stems recorded in 1934 and 1935 resembling galls of *R. tanaceticola* Karsch were found in some numbers at Fetcham.

Linaria vulgaris Mill.—*Contarinia anthophthora* F. Lw. Fetcham.

Juniperus communis L.—*Oligotrophus* sp. (Houard 127) was again found at Limpsfield, while the small bud gall due to another species of *Oligotrophus* was found in four localities.

TRYPETIDAE.

Centaurea scabiosa L.—*Euribia cuspidata* Mg. Mr Niblett records this from Sussex, which seems to be the second record for Britain. He has also bred out other species and a list of the British *Trypetidae* appeared from his pen in the May number of the *Entomologist's Record*.

HEMIPTERA.

PSYLLIDIDAE.

Acer campestre L. Leaves heavily puckered. In the hollows underneath lived a lot of Psyllids. Shropshire.

ACARINA.

ERIOPHYIDAE.

Several of the rarer species were noted from time to time. Mr Niblett reports finding a number of flowers of *Senecio jacobaea* L. converted into masses of white hairs, evidently the work of *Eriophyes* sp., but none of the mites were seen on microscopical examination.

NEMATODA.

Agrostis alba L.—*Anguillulina graminophila* Gooday. Fresh galls appeared in my garden on a plant brought in last year from Headley, and a few fresh galls were seen late in the year on the old locality and also on Epsom Downs.

Arrhenatherum elatius Mert. & Koch. Swellings at the base of the stems due to *Heterodera schachtii* Schmidt. Headley.

Agropyron repens Beauv. Smaller swellings at the base containing eelworms. Headley.

The Survey of Limpsfield Common.

THIRD YEAR.

DESPITE the temporary absence of several enthusiastic naturalists towards the close of the year the Ecological Section is again able to present a further instalment of records of the Flora and Fauna of the Common. Even if little can be done in the immediate future we have been able to make a historic record for 1937-39 of a Common which is steadily changing. Continued study will increase the value of this record and it is anticipated that members will be willing to assist in the work whilst others are away. Copies of all notes, reports, photos, etc., as well as offers of assistance, will be welcomed by the Hon. Sectional Secretary.

The published lists should be of considerable interest and help to beginners in Natural History, who are urged to make use of the work already in hand.

Copies of maps and reprints are obtainable from the Hon. Librarian or Hon. Sectional Secretary.

L. PARMENTER, *Hon. Sectional Secretary.*

THE FLORA OF LIMPSFIELD COMMON (2).

By R. W. ROBBINS.

In the table of the existing flora and its distribution published last year (*Lond. Nat.*, 1938, pp. 62-74) there were some obvious gaps in the record to which reference was made in the preamble (p. 62). The chief deficiency was due to the paucity of records in the early months of the year. In 1939 the attempt was made to remedy this and a large number of additional records were made, the results of which are here summarised. The sections (A to Z) into which the area is divided, and the signs of frequency used, are identical with those in the table published last year.

In the course of the season 30 species were added to the list, making a total of 369 (355 phanerogams, 6 conifers, 8 ferns). This figure probably represents at least 95% of the species present on the Common. Of the additions the following are of garden origin, growing in disturbed ground:—

- | | |
|---|---|
| 48 <i>Aquilegia vulgaris</i> L. (r in H). | — <i>Lychnis coronaria</i> L. (l in D). |
| 71 <i>Corydalis lutea</i> DC. (r in Z). | — <i>Lobelia Erinus</i> L. (r in U). |
| — <i>Arabis albida</i> Stev. (r in C). | 1303 <i>Campanula persicifolia</i> L. (r in D). |
| 112 <i>Alyssum maritimum</i> Lam. (r in U). | — <i>Crocus aureus</i> Sibth. & Sm. (r in A). |

Also, in damp shady ground:—

- 297 *Claytonia alsinoides* Sims (la in L).
 — *Populus balsamifera* auct. (r in L). Planted tree.

The remaining new species, which belong to the natural flora of the Common, are included in their places in the list which follows and marked with an asterisk; and in each case the name is followed by the initial indicating the normal range or type of habitat of the species (*Agrestal*, *Ericetal*, etc.) as in last year's table.

To include all the additional records made in 1939 would make the list unduly long, and would be of little value in those cases where the records already published sufficiently indicate the frequency and distribution of the species. But it is hoped that nothing of importance is omitted. The early-flowering plants and certain grasses are the species chiefly concerned.

- 28 **Ranunculus Flammula* L. (Pa) r in Uc.
 33 *R. acris* L. r in A; o in F; l in H, Uc; lc in Ka, N.
 35 *R. bulbosus* L. lc in G, H, Ka, R, U; o in L, M, N. S; r in Y.
 41 *R. Ficaria* L. lc in A, G, H, R, T; l in B, Ka, L, P.
 63 **Papaver dubium* L. (A) r in L.
 105 *Cardamine pratensis* L. l in Ka, U; o in N; r in Uc.
 107 **C. flexuosa* With. (R & c.) l in H; r in T.
 127 *Sisymbrium Thalianum* Gay. l in D; r in L, Y, Z.
 189 *Viola canina* L. r in Ka, U; l in N; lc in W.
 209 *Polygala serpyllacea* Weihe. r in Ka; lc in N; c in P; o in W.
 248 **Cerastium semidecandrum* L. (G) l in A, D, Ka; lc in L.
 249 *C. viscosum* L. l in B, T; lc in D, L; r in P, Y.
 269 *Arenaria trinervia* L. l in A, B, F, U; lc in H; r in P.
 280 **Sagina ciliata* Fr. (E) l in L.
 325 **Malva rotundifolia* L. (V) r in Z.
 396 *Trifolium pratense* L. o in G, H, Ka; r in Kb.
 416 *T. dubium* Sibth. o in E; l in N, X, Y; lc in R; c in P.
 417 **T. filiforme* L. (Ps) l in P.
 420 *Lotus corniculatus* L. r in G, Q; lc in Ka, N, R, U; l in S.
 431 *Ornithopus perpusillus* L. lc in A, L, P, Z; l in Ka.
 446 **Vicia sativa* L. (A) r in P.
 447 *V. angustifolia* L. l in B, L, N; lc in E, R; c in P; r in F, Ka.
 454 *Lathyrus pratensis* L. l in Ka, N, P, R, T.
 510 **Rubus p. subinermis* Rogers. (Sy) l in U.
 670 **Rosa tomentosa* Sm. (Sp) rr in W.
 809 *Conopodium majus* Loret. r in B, L; l in C, F, N, P; o in H; lc in Ka, Kb, R, S, T, U.
 827 **Aethusa Cynapium* L. (A) r in Z.
 914 *Gnaphalium uliginosum* L. l in Uc, W.
 1015 *Crepis capillaris* Wallr. l in E, N, R, X; r in Y.
 1275 **Taraxacum laevigatum* DC. (G) l in L; r in P.
 1449 *Scrophularia nodosa* L. l in C; r in U.
 1464 *Veronica arvensis* L. lc in D, W; r in L, Y; o in P.
 1465 *V. serpyllifolia* L. o in C; r in F, N; lc in W.
 1471 *V. officinalis* L. lc in Ka, Kb, N; o in P, U.
 1500 *Pedicularis sylvatica* L. l in H, P.
 1617 **Scleranthus annuus* L. (A) l in E or F.
 1813 **Orchis elodes* Gris. (*maculata* L.). (E) r in R.
 1872 *Scilla non-scripta* Hoffm. & Link. o in E, Ka, P, Q, S, U; lc in F, N, R, W; c in Uc; r in X, Z.
 1886 *Juncus bufonius* L. l in R, Uc.
 1924 *Arum maculatum* L. lc in C, R, W; r in N, U; l in T.
 2035 **Carex divulsa* Stokes. (Sp) l in N.
 2062 *C. pilulifera* L. r in A, D, E, T, W; lc in B, Ka, U; l in H; o in N; c in Kb.
 2107 *Anthoxanthum odoratum* L. lc in A, B, E, H; o in C, P, Q; l in F, S; r in R.
 2114 **Alopecurus pratensis* L. (Pr) l in Ka, Uc, W; lc in Kb, N, R, U; r in S.

- 2141 *Aira praecox* L. 1 in A, Ka, Kb, S; c in B, L; lc in D, E, N, P, U, W.
 2143 *Deschampsia caespitosa* Beauv. r in C; l in Kb; lc in N.
 2149 *Trisetum flavescens* Beauv. r in G; lc in Ka, N; o in Kb.
 2160 *Cynosurus cristatus* L. 1 in G, Kb, M; lc in N, P, R; r in Q.
 2173 *Poa annua* L. lc in D; l in R; c in B, E, Ka, Kb, L, N, P, S, W; o in Uc.
 2180 *P. nemoralis* L. lc in C, T; r in H.
 2183 *P. pratensis* L. 1 in A, B, C, Ka; lc in F, H, Kb, N, T; r in S.
 2186 **P. trivialis* L. (Pr) lc in A, C, Kb, N; l in D, Ka, Q; c in F, G, H, R, Z.
 2202 **Festuca bromoides* L. (G) l in A, B.
 2209 *F. rubra* L. lc in A, Kb, M, N; l in B, F, Ka, Q, R; c in U, V.
 2213 *F. pratensis* Huds. o in A; l in H, Kb, M; lc in N.
 2223 *Bromus sterilis* L. r in A; l in B, Ka, M, R, T, U; c in L, Z.
 2228 **B. hordeaceus* L. (*mollis*) (Pr) l in B, F, Ka, M; r in G, P; lc in N, R, T.
 2234 *Lolium perenne* L. 1 in A, F; lc in B, N, W; c in E, G, H, Kb, M, R.
 2277 **Phyllitis Scolopendrium* Newm. (Sy) rr in L.
 2301 *Ophioglossum vulgatum* L. 1 in N.

It is, perhaps, worth stating the number of species recorded in each section. Reference to *The London Naturalist*, 1937, pp. 50 and 51, where the sections are briefly described, will help to explain the variation in the numbers. Section A, 109; B, 90; C, 95; D, 59; E, 79; F, 79; G, 75; H, 123; Ka, 118; Kb, 110; La, 100; Lb, 95; M, 86; Na, 94; Nb, 113; P, 134; Q, 51; Ra, 121; Rb, 127; S, 79; T, 110; Ua, 125; Ub, 93; Uc, 88; V, 66; W, 145; X, 91; Y, 53; Za, 57; Zb, 79.

LEPIDOPTERA OF LIMPSFIELD COMMON, 1937-1939.

By R. W. ROBBINS.

It cannot be said that serious work in this group has up to the present been put in hand. The list which follows is obviously fragmentary, being chiefly the result of chance observations, but it has been thought worth while to put them on record. It seems probable that the Common is not rich in the larger species, or they would have become more obvious by this time to our observers. The "micros" may offer a better field, but no worker has yet undertaken to record them.

The Common is a dry area, on a very porous soil. There are no streams, and only one or two damp grassy spots. There is no marsh vegetation. In general the vegetation is a mixture of heath and woodland types and "is far from being in a static condition, but is constantly changing." Various considerations "all favour the suggestion that the Common was open heathland which has been invaded in recent times by woodland" (Castell, *Lon. Nat.*, 1938, pp. 59, 60). These conditions suggest that while heathland Lepidoptera are likely to be diminishing, woodland species are not yet firmly established.

RHOPALOCERA (Butterflies).

- Maniola tithonus* L. Hedge Brown. Kb, 29/7/38.
M. jurtina L. Meadow Brown. S, 2/7/39.
Coenonympha pamphilus L. Small Heath. A, 21/5/38 (some); Ka, 2/7/39.
Vanessa atalanta L. Red Admiral. T, 6/6/37.
V. cardui L. Painted Lady. W, 25/6/39.

- Aglais urticae* L. Small Tortoiseshell. 6/3/38.
Nymphalis io L. Peacock. W, 6/3/38; Ub, 7/5/39.
Polygonia c-album L. Comma. T, 30/7/39.
Lycaenopsis argiolus Rott. Holly Blue. M, 27/4/38; A, 30/7/39; Rb, Kb, 18/8/39; Nb, Rb, 19/8/39 (3 or 4).
Lycaena phlaeas L. Small Copper. A, 4/4/37, 5/38, 5/39, 7/39; B, 28/5/39; Ub, 21/5/38.
Pieris brassicae L. Large White. A, 30/7/39.
P. rapae L. Small White. A, 30/7/39; Y, 4/6/39 (many).
P. napi L. Green-veined White. B, 29/5/39.
Euchloe cardamines L. Orange-tip. W, 4/6/39 (2); L, 4/6/39.
Gonepteryx rhamni L. Brimstone. 6/3/38 (several), 31/3/39; Uc, 21/5/38; Y, 4/6/39. Food plant (Buckthorn) is absent.
Syrichthus malvae L. Grizzled Skipper. K, 7/5/39, 4/7/39; Kb, 3/6/39 (3); P, 19/5/39.
Ochlodes venata Bremer & Grey. Large Skipper. Kb, 26/6/39.

HETEROCERA ("Moths").

- Tyria jacobaeae* L. Cinnabar. Larvae on Ragwort, Ea, 7/37.
Diacrisia menthastri Esp. White Ermine. E, L, 5, 6/39.
Neuronia popularis F. Feathered Gothic. S, 8/38.
Melanchra dentina Esp. Shears. P, Ra, 7/38.
M. pisi L. Broom Moth. Q, 9/37 (larva).
M. myrtilli L. Beautiful Yellow-underwing. Nb, 1938 (larva, bred).
Agrotis puta Hb. Shuttle Dart. D, 5/39.
A. strigula Thnb. True Lovers Knot. P, Rb, 8/38; K, 11/37 (larvae, bred).
A. pronuba L. Common Yellow-underwing. Nb, P, 8/38.
A. brunnea F. Purple Clay. T, 7/38.
A. xanthographa F. Square-spot Rustic. S, 8/38.
Rusina tenebrosa Hb. Feathered Rustic. 11/37 (larva, bred).
Caradrina trapezina L. Dunbar. S, T, 8/37, 8/38.
Hadena meticulosa L. Angleshades. S, 8/38.
H. didyma Esp. Common Rustic. Nb, 8/38.
Acronycta leporina L. The Miller. K, 9/37 (larva, bred).
Aethia nemoralis F. Small Fan-foot. T, 6, 7/38.
Scoliopteryx libatrix L. Herald. P, 6/38.
Orgyia antiqua L. Vapourer. Nb, 9/38.
Porthesia similis Fuesl. Goldtail. 4/38 (larvae).
Gymnoscelis pumilata Hb. Furze Pug. Nb, 4/38.
Hydriomena fulvata Forst. Barred Yellow. Rb, 30/6/38 (common).
H. bilineata L. Shell. S, T, 8/38 (common).
Operophtera brumata L. Winter Moth. Nb, 12/38 (abundant).
O. boreata Hb. Northern Winter Moth. Q, 11/37.
Asthena autumnaria Gn. Q, 7/11/37.
A. dilutata Bkh. November Moth. W, 10/38.
Xanthorhoe spadicearia Bkh. Red Twin-spot Carpet. Na, 5/39.
X. designata Rott. Flame Carpet. Za, 9/38.
Eois bisetata Hufn. Small Fan-foot Wave. Rb, 8/38.
Leptomeris remutata Hb. Cream Wave. Rb, 8/38.
Euchloris lactearia L. Little Emerald. T, 7/38.
Opisthograptis notata L. Peacock Moth. Nb, 30/6/38.
O. luteolata L. Brimstone Moth. Na, Nb, 6/38; S, 8/38.
Ectropis punctularia Hb. Grey Birch. Za, 5/37.
E. biundularia Bkh. Engrailed. 15/8/37.
Selidosema repandata L. Mottled Beauty. Na, 6/38.
S. gemmaria Brh. Willow Beauty. Ra, 8/38.
Bupalus atomarius L. Common Heath. A, E, K, Na, etc. (common, April to June).
Abraxas marginata L. Clouded Border. H, 6/38; Q (larva, 9/37, bred).
Pseudopanthera punctata F. (*temerata* Hb.). Silver Cloud. Ra, 5/38.
P. petrarica Hb. Brown Silver-line. A, 6/38; N, 6/37, 6/38 (common).

- Hybernia leucophaearia* Schiff. Spring Usher. T, 13/2/38 (two in one hour's searching).
- Dielis pusaria* L. Common White Wave. K, Q, 9/37 (larvae, bred); Nb, 6/38; T, 7/38 (plentiful).
- Selenia bilunaria* Esp. Early Thorn. Nb, 1/4/38 (several).
- Gonodontis elinguaris* L. Scalloped Oak. S, 8/38.
- Crambus pratellus* L. Dark-inlaid Veneer. Rb, 12/6/38 (several).
- C. culmellus* L. Straw-coloured Veneer. Kb, R, S, 8/38 (common).
- C. pinellus* L. Pearl Veneer. E, 5/8/38.
- C. tristellus* F. Common Veneer. P, R, S, 8/38 (plentiful).
- Endotricha flammealis* Schiff. Rosy-flounced. A, B, E, 8/38 (plentiful).
- Epiblema tetraquetra* Hw. 11/38 (larvae in stems of birch).
- Laspeyresia ulicetana* Hw. N, K, etc., 5/38 and 8/38 (abundant round gorse).
- Acalla ferrugana* Tr. Na, 6/2/38.
- Tortrix viridana* L. Green Oak-moth. T, 7/38 (abundant).
- Depressaria arenella* Schiff. N, 8/11/37.
- Adela viridella* Sc. Common Longhorn. S, 19/5/39 (many).
- Hepialus hectus* L. Golden Swift. T, 7/38 (plentiful).
- H. humuli* L. Ghost Moth. Na, Ra, Rb, 6, 7/38.

HYMENOPTERA ACULEATA OF LIMPSFIELD COMMON, 1939.

By K. M. GUICHARD.

The sixty-three species of Aculeates from Limpsfield Common listed in the 1938 *London Naturalist* were captured during fifteen different days as follows:—March, 1 day; April, 2 days; May, 2 days; June, 6 days; July, 2 days; and September, 2 days. Some of the specimens were taken casually by those interested in other groups and on days when no specialist was in the field.

During 1939 the only specialized collecting was done by myself during three days in May, but Mr Parmenter took two species on July 30th, both of them new to the list. The collecting during 1939 resulted in the capture of over fifty species, no less than twenty-seven being additions to the Limpsfield list. When the area has been worked properly, especially in late June, July, and August, the total number of species should be at least one hundred and fifty. The Pompilidae, Vespidae, and Sphecidae are very poorly represented indeed.

Mr G. M. Spooner very kindly examined a few critical specimens and determined two male Pompilids as *Priocnemis clementi* Haupt., a species not at the moment on the British List but mixed in collections with *P. perturbator* Harris. Another interesting find at Limpsfield was *Andrena bucephala* Stephens, but unfortunately only a single male was found, although a special search was made for a colony. The females of this *Andrena* have been observed issuing from a communal entrance hole in the ground leading to their respective burrows.

An asterisk has been placed above those species which are additions to the 1938 List; all other records are for areas in which the species has not been recorded before. My thanks are due to Dr I. H. H. Yarrow for kindly putting my notes in order during my absence on Service.

LIST OF SPECIES.

POMPILIDAE.

- **Priocnemis perturbator* (Harris). ♀, U(b), 20/5/39, det. G.M.S.
 **Priocnemis clementi* Haupt. 2 ♂♂, D, 7/5/39, det. G.M.S.

VESPIDAE.

- Vespula vulgaris* (L.). U(b), 30/7/39, nest in bank.

SPHECIDAE.

- **Lindeni* *albilabris* (Fab.). 2 ♀♀, K(a), 30/7/39, on an umbel head.

APIDAE.

- **Prosopis confusa* (Nyl.). ♀, G, 30/7/39.
 **Sphcodes ephippius* (L.). ♀♀, D, ♀, U(b), 7/5/39; ♀, B, 13/5/39; ♂, A, 30/7/39.
Halictus leucozonius (Schr.). ♀, D, 7/5/39.
 **Halictus lativentris* (Schenck). ♀, U(e), 20/5/39; ♂, P, 4/9/38.
Halictus albipes (Fab.). ♀, U(a), 20/5/39.
Halictus minutissimus (Kirby). R(a), 17/5/39.
Halictus perkinsi Bluth. ♀, U(a), 7/5/39; ♀, U(b), 13/5/39; ♀, U(a), 20/5/39; det. G.M.S.
 **Halictus tumulorum* (L.). 2 ♀♀, U(a), 7/5/39; det. G.M.S.
 **Halictus morio* (Fab.). ♀, A, 13/5/39, at stitchwort; ♀, U(a), 20/5/39.
Andrena haemorrhoea (Fab.). ♂♂, ♀, N(b), 7/5/39.
 **Andrena flavipes* Panz. ♀♀, P, 7/5/39.
Andrena pubescens Oliv. ♂, A, ♂, K(b), 7/5/39; ♂♂, U(b), 13/5/39.
Andrena nigroaenea (Kirby). ♂, A, ♀♀ nesting in P, 7/5/39.
Andrena jacobae Perkins. ♀, X, 20/5/39. This species was named wrongly as *trimmerana* (Kirby) in the 1938 list.
 **Andrena bucephala* Stephens. ♂, U(b), 7/5/39, flying along beech hedge.
 **Andrena fucata* Smith. 2 ♂♂ (stylopized), U(b), 13/5/39.
 **Andrena synadelpha* Perkins. ♂, ♀, at stitchwort, E(a), 13/5/39; ♂, K(a), 13/5/39; ♀, W, 4/6/39.
 **Andrena helvola* (L.). 4 ♂♂, U(b), 7/5/39, flying about hazel; ♂, ♀, U(b), 13/5/39; ♀, W, 20/5/39, at gorse.
Andrena armata (Gm.). ♀, U(a), 13/5/39.
 **Andrena clarkella* (Kirby). ♀, very worn, D, 7/5/39.
Andrena barbilabris (Kirby). ♂♂, ♀♀, A, 20/5/39.
Andrena chrysosceles (Kirby). ♂♂, P, ♀♀, E, U(b), 7/5/39.
Andrena labiata Fab. ♀, E, 7/5/39, at stitchwort.
 **Andrena saundersella* Perkins. ♂, ♀, U(b), 13/5/39.
 **Andrena falsifica* Perkins. ♂, D, 7/5/39.
Andrena minutula (Kirby). ♂, ♀, U(b), 13/5/39.
 **Andrena subopaca* Nyl. ♂, W(b), 7/5/39; ♂♂, ♀♀, U(b), 13/5/39.
 **Andrena ovatula* (Kirby). ♀, R(a), 7/5/39; ♂, ♀ (stylopized), U(b), 13/5/39.
Andrena wilkella (Kirby). ♀ (stylopized), W, 20/5/39, at stitchwort.
 **Anthophora retusa* (L.). 3 ♂♂, D, 7/5/39; ♂♂, B, D, 13/5/39; ♂♂, ♀♀, A, 20/5/39, common, nesting in sandy banks.
 **Nomada goodeniana* (Kirby). ♂♂, A, ♂, C, 7/5/39; ♂♂, ♀♀, U(b), 13/5/39.
 **Nomada marshamella* (Kirby). ♂, A, 7/5/39; ♂, ♀, U(b), 13/5/39.
 **Nomada signata* Jur. ♀, A, 7/5/39.
 **Nomada flava* Panz. ♂♂, ♀♀, U(b), 13/5/39. The ♀ *N. ruficornis* recorded in the 1938 list is no longer available for examination. It was either *N. flava* or *N. panzeri* Lep.
 **Nomada sheppardana* (Kirby). P, 11/6/38.
 **Bombus hortorum* (L.). ♂, U(b), at gorse, 20/5/39.
 **Psithyrus vestalis* (Geoff. in Fourc.). ♀, U(b), 7/5/39; ♀, U(b), 13/5/39; ♀, E, 20/5/39.
 **Psithyrus sylvestris* Lep. ♀♀, U(b), R(a), 7/5/39; ♀, S, 13/5/39, at vaccinium; ♀, D, 20/5/39.

A SECOND WINTER CENSUS OF THE BIRDS OF LIMPSFIELD COMMON.

By L. PARMENTER.

As very few counts of birds have been made in winter in this country it was decided to make an effort to repeat the census made at Limpsfield Common in December 1938 despite difficulties of transport due to the war. Accordingly, on December 3rd, 1939, nine observers working in four parties visited every Area on the Common. In some cases it was possible to have Areas counted by two parties. The count was made in sunshine between 10.45 a.m. and 1 p.m., the visibility being excellent.

There were fewer species and individuals present than in 1938. This may have been due partly to the presence of many "evacuees" in the village who visit the Common and partly to the flattening of large areas of bracken by the bracken breaker used on the Common.

Lesser Redpolls, Bullfinches, Hedge Sparrows, and Wrens had noticeably decreased. The similarity of the figures for the two years for Song Thrush and Blackbird, the latter ten times as numerous in winter than the former, is of great interest. That this may be due to a genuine emigration of the Thrushes is suggested by the fact that counts made in low-lying ground a few miles to the south-west showed a similar proportion of Song Thrushes and Blackbirds in winter.

To Miss B. E. Brown, Mr and Mrs R. S. R. Fitter, Mr and Mrs E. R. Parrinder, Messrs K. R. Chandler, W. D. Park, and J. H. G. Peterken, who were able to co-operate with me in this census, I tender my grateful thanks.

For an account of the Areas listed below see Parmenter and Thomas (1937).

Carrion-Crow. <i>Corvus corone corone</i> L. Uc (1), ...	1
Rook. <i>Corvus f. frugilegus</i> L. Ra (2), Rb (10), ...	12
British Jay. <i>Garrulus glandarius rufitergum</i> Hart. T (2), X (2), ...	4
Starling. <i>Sturnus v. vulgaris</i> L. Rb (1), ...	1
Hawfinch. <i>Coccothraustes c. coccothraustes</i> (L.). P (1), ...	1
Lesser Redpoll. <i>Carduelis flammea cabaret</i> (Müll.). Ea (1), F (3), ...	4
British Bullfinch. <i>Pyrrhula p. nesa</i> Math. & Ired. Ra (1), W (3), ...	4
British Chaffinch. <i>Fringilla coelebs gengleri</i> Klein. F (1), G (1), Kb (2), M (2), Na (1), P (3), Ra (1), Rb (1), T (1), Ua (1), W (1), X (3), Zb (2), ...	20
House-Sparrow. <i>Passer d. domesticus</i> (L.). C (2), Rb (1), X (10), Zb (5), ...	18
Meadow-Pipit. <i>Anthus pratensis</i> (L.). Kb (5), Na (3), Ua (1), ...	9
British Tree-Creeper. <i>Certhia familiaris britannica</i> Ridgw. C (1), T (1), ...	2
British Nuthatch. <i>Sitta europaea affinis</i> Blyth. A (1), ...	1
British Great Tit. <i>Parus major newtoni</i> Pražak. A (1), C (2), F (2), H (1). Kb (1), T (3), W (1), X (1), ...	12
British Blue Tit. <i>Parus caeruleus obscurus</i> Pražak. C (4), E (1), Ea (2), F (5), H (5), Ka (2), Kb (2), M (2), P (1), Ra (1), Rb (5), T (7), W (1), X (2), Zb (1), ...	41
British Coal-Tit. <i>Parus ater britannicus</i> Sharpe & Dresser. C (1), H (1), T (1).	3
British Marsh-Tit. <i>Parus palustris dresseri</i> Stejn. C (3), W (2), ...	5
Marsh- or Willow-Tit. Rb (1), T (1), V (2), ...	4
British Long-tailed Tit. <i>Aegithalos caudatus rosaceus</i> Mathews. C (6), H (4). Kb (6), Rb (1), T (8), X (1), ...	26
British Goldcrest. <i>Regulus r. anglorum</i> Hart. C (2), Ka (1), Rb (1), T (3), X (2), ...	9
Mistle-Thrush. <i>Turdus v. viscivorus</i> L. F (2), Ka (2), P (1), Rb (1), X (3), ...	9

British Song-Thrush. <i>Turdus e. ericetorum</i> Turton. Ka (1), Na (1), Rb (1), V (1), W (1), X (1), Zb (3), ...	9
Blackbird. <i>Turdus m. merula</i> L. C (3), E (2), F (1), G (1), H (3), Ka (4), Kb (6), La (1), M (4), Na (7), Nb (2), P (4), Q (1), Ra (3), Rb (10), T (7), W (3), X (10), Y (2), Zb (2), ...	76
British Robin. <i>Erithacus rubecula melophilus</i> Hart. A (1), C (1), F (3), H (5), Ka (2), Kb (1), M (1), P (1), Ra (2), Rb (6), T (2), Ub (1), Uc (1), W (1), X (3), Zb (1), ...	32
British Hedge-Sparrow. <i>Prunella modularis occidentalis</i> (Hart.). H (1), Ka (1), P (2), X (1), ...	5
Wren. <i>Troglodytes t. troglodytes</i> (L.). C (1), E (1), F (2), Ka (2), Kb (2), Na (2), P (1), Ra (2), Rb (1), T (2), W (1), X (1), ...	18
Green Woodpecker. <i>Picus viridis pluvius</i> Hart. A (1), ...	1
Pheasant. <i>Phasianus colchicus</i> L. W (1), ...	1
Totals :—A, 4; B, 0; C, 26; D, 0; E 4; Ea 3; F, 19; G, 2; H, 20; Ka, 15; Kb, 25; La, 1; Lb, 0; M, 9; Na, 14; Nb, 2; P, 14; Q, 1; Ra, 12; Rb, 40; S, 0; T, 38; Ua, 2; Ub, 1; Uc, 2; V, 3; W, 15; X, 40; Y, 2; Za, 0; Zb, 14;	= 328
Number of Species = 26 (plus 1 indet.).	

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Book Reviews.

Vitalism, its History and Validity, by L. Richmond Wheeler, B.A.,
M.Sc., Ph.D. (Lond.), F.L.S. Pp. xii + 275 (London, H. F. &
G. Witherby Ltd., 1939; 15s).

Vitalism, as defined by Dr Wheeler, comprises " . . . all the various doctrines which . . . have described living things as being actuated by some power or principle additional to those of mechanics and chemistry." The author has given us a thorough-going and profusely documented analysis of this school of thought, to which it is impossible to do justice in a review. The historical survey, indeed, is rather overdone, and tends to degenerate into an undignified snatching of crumbs of allegedly vitalistic ideas from most unlikely authors, but Dr Wheeler's exposition of the modern vitalistic outlook is most comprehensive. One might question his interpretation of a number of biological phenomena; for example, he rightly stresses the apparent evasion of the second law of thermodynamics by living systems, but it is difficult to accept photosynthesis as retarding the increase of entropy. In general, there is too much stress on the complex forms of life, which naturally show organisation, development and reproduction in their most highly developed state. His challenge to Pavlov to show that "a compass needle could associate the sound of a bell with the effect of a magnet" might be answered by a challenge to Driesch to teach a similar association to a Hydra, or even a worm.

Few modern biologists will deny that living systems obey laws peculiar to themselves, whatever may be their origin or the possibility of ultimately expressing them in physico-chemical terms; the difficulty is to progress from that point. Dr Wheeler has nothing to offer; like most devotees of “-isms,” he is content to point to the inadequacy of a physico-chemical explanation of life, and to name the hiatus “Vitalism.” Needham’s neo-mechanistic tool-shed, despised though it is by Dr Wheeler and his school, contains one implement that they might usefully borrow—“the pruning-knife of the immortal Occam.”

H. O.

British Blood-sucking Flies, by F. W. Edwards, Sc.D., F.R.S., H. Oldroyd, M.A., and J. Smart, Ph.D. Pp. viii + 156, 64 figs., 45 pls. (London, Brit. Mus. (Nat. Hist.), 1939; 15s).

Among the books added to the Library during the past year is a copy of *British Blood-sucking Flies*, originally written by Major E. E. Austen and published in 1906, and now re-written by Dr F. W. Edwards, Mr H. Oldroyd, and Dr J. Smart, with additional figures and coloured plates, and published by the British Museum (Natural History), South Kensington, at the very modest price of 15s.

The plates by Mr A. J. E. Terzi are beautifully executed and the letterpress well and clearly printed. Any member who knows what it is to be attacked by some of the species that are dealt with here should be grateful to the Authors for enabling him to identify his persecutors, and every Dipterist will welcome a book that contains so much of interest on some of the groups he is studying. The Ornithologists too will find illustrations of some of the bird parasites, creatures that are both repulsive and yet fascinating in their adaptations to life under special conditions.

H. J. B.

Obituary.

FREDERICK BENN HARVEY, 1867-1940.

By the passing of “Fred” Harvey the Society loses another of its “old stagers” and a member of outstanding character.

Both his brother Arthur and he were closely associated with that small band of young naturalists who founded the North London Natural History Society in 1892, one of the parent societies of our present institution. As a member of the Council, and for some years Librarian, Harvey did useful work for our Society but he was essentially an outdoor man and was never so happy as when indulging his favourite hobby of long cross-country walks.

In 1915 Harvey attained his heart’s desire when, retiring from city life, he settled in a quiet village in Kent and became a real countryman

and a man of the country. Here with his garden and paddock, neighbourly intercourse and church work (he was for nearly a quarter of a century a Choirman and Sidesman of Lyminge Church), he settled down happily, watching his four sons grow to manhood and making but infrequent visits to London and our meetings but always keeping in touch.

Harvey had an enlightened and original outlook on most subjects, with an horizon far beyond his little hamlet, and his like will not again be met by those friends of his youth most in a position to appreciate his great worth. We give a warm welcome to his son Arthur, who is following in his father's footsteps by joining our Society.

S. A.

ROBERT MARSHMAN WATTSON, 1859-1939.

To the younger members of our Society the name of Marshman Wattson will not be as familiar as to those of that dwindling band associated with the formation of the North London Natural History Society in the early nineteen hundreds. Although not one of the actual founders (1892), he joined that small group of enthusiasts the following year, most of whom he had known and encouraged in their natural history pursuits.

The Lepidoptera were Wattson's first love, and to listen to his account of captures made while "fencing," "lamping," "ivy-ing" or "sugaring" in the neighbourhood of his home at Dalston and later Camden Town, nearly 70 years ago, would greatly astonish a naturalist living in those parts to-day.

On his marriage and settling at Clapton, with its easy access to Epping Forest, its pools and swamps, he became interested in pond life and more particularly dragon-flies, in which group he became expert, getting in touch with the leading authorities in England and France.

In later years, with a natural slackening of activities, the gift of a camera turned his attention to photography, the possibilities of which appealed to his artistic nature. Wattson was a good designer and draughtsman and no mean water colourist, and after experiments with nature subjects he turned his attention to architectural photography. On the formation of our Archaeological Section he became an enthusiastic member, interesting himself more particularly in "English" Gothic, and in characteristic manner electing to specialise he chose fonts, of which he formed an extensive series of lantern slides, now in the library of the Society. He was an expert gardener, and one could rely on finding in his garden some plant of unusual interest, not infrequently of wild origin, which he had coaxed to establish itself.

Of late Wattson's visits to our meetings were infrequent, but his interest never flagged, and a recent action of his was typical of the man; he made his granddaughter a life member of the Society, since when both his son and daughter-in-law have joined us, thus establishing a connection of three generations, a unique record in our annals.

A loyal friend, observant and ever helpful in the field, a staunch member of the Society, Wattson leaves happy memories with those who were privileged to enjoy his friendship.

S. A.

CHARLES NICHOLSON, 1869-1940.

Charles Nicholson died at Penzance on March 21st, 1940, in his 72nd year. Thus passes one more of the original members of that youthful group who in 1892 launched the North London Natural History Society. He was then living with his parents at Evering Road, Clapton, and on his marriage, removed to Hale End, Chingford, then a rural spot.

From the first Nicholson took an active part in the affairs of the Society. After four years as Librarian, he was chosen President for the year 1897, he held the Secretaryship for the year 1900, and up to 1906 and again in 1920-22 served in one capacity or another. He was for years the chief exponent in the Society of matters astronomical, but his interests were widespread, including Lepidoptera, Hymenoptera, Botany, Pond Life, and Ornithology.

Through an unfortunate difference on a minor point Nicholson left the Society in 1923, and on his retirement from business in 1928 migrated to Tresillian, near Truro, where he cultivated many exotic plants in his garden and made observations on the flora and insect fauna. In 1930 he rejoined the Society as a Country Associate, corresponding freely and contributing floral exhibits to the Annual Exhibitions. As recently as 1938 he presented a cabinet and collection of insects to the Society. He was a frequent contributor of notes and observations to entomological and other journals, particularly to *The Entomologist*. He published in *The Gardener's Chronicle* a full list of the known occurrence in England of mistletoe on oak.

Nicholson was a man of strong character and decided opinions. He was a fluent speaker and at times apt to be blunt in his expression of approval or disagreement, but we had a great regard for him as a sound naturalist and a real good fellow. Peace to his memory.

May we extend to his wife and to his sister, who is a life member of the Society, our sincerest sympathy in their bereavement.

R. W. R.

Council's Report, 1939.

DURING 1939 the Society progressed very satisfactorily until September, at which time the membership was equal to that at the beginning of the year; thereafter four more members came in, making an increase that brought our total figure up to 588.

All our activities were well maintained, the Annual Exhibition being more extensive and more representative than ever. The average attendance at indoor meetings was 86.

On the outbreak of war the Council decided to cancel the remainder of the syllabus for the time being, and appointed an emergency Council to take control and organise whatever fixtures might be possible. They arranged a series of Field Meetings every Sunday, from 19th November to 30th June 1940, and inaugurated a Register List at 2/6 per annum for members unable to share in the activities of the Society during war-time, thus keeping in touch many who would otherwise have dropped out.

The London Naturalist and *The London Bird Report*, under the new editorship of Mr Oldroyd, maintained well the high tradition to which we are accustomed; the library, with its new Librarian, Mr Spinney, was well patronised, and the finances of the Society remain sound.

We now look forward to the time when normal activities may be resumed; in the meantime it is hoped that meetings will be well supported, and the Recorders are eager to receive all the notes that members can supply, and to welcome more recruits.

A. B. HORNBLOWER, *Hon. General Secretary.*

Librarian's Report.

THE year 1938-39 was noteworthy in the Library by reason of a number of welcome donations. Chief of these was the magnificent sum of £15 to be spent on botanical books, given by an anonymous benefactor. With this the Botanical Section of the Library, already securely founded on the collection of C. S. Nicholson, was brought up to date by the acquisition of 23 new books, which included not only many badly-needed standard works but also some lighter material.

The Ornithological Section benefited by a selection of books from the library of the late Donald Gunn, and the Archaeological Section by a substantial collection presented by the son of the late R. M. Wattson.

Not counting this last item, seventy-seven works were added last year, as well as the serial publications of over fifty societies.

On the outbreak of war in September we were compelled to close the Library, as the premises were required as a public air-raid shelter, and the books had to be evacuated hastily into an adjoining room. This

makes statistics of issues difficult to interpret, but there is no doubt that the Library was not being used to the extent it deserved.

The chief cause was certainly the remote and uncomfortable situation in a basement corridor, and the lack of facilities for displaying the books. At present even the little that we had has been taken away, but books can still be borrowed by sending a postcard to the Librarian, and collecting them subsequently from the porter at the entrance.

In order to be of any use for reference and research the Library needs a new classified catalogue and some form of subject index for important articles in periodicals. Before the outbreak of war some progress was made with the catalogue, with the help of Miss Taylor, and Miss Hudson gave much assistance in sifting and sorting our sets of periodicals, but it is feared that this work must be held up now until after the war.

My first year as librarian has served to increase my admiration for Mr Pethen. The extent of the routine work which falls to the librarian can only be appreciated by one who has tried to carry it on. Mr Pethen did it cheerfully and well for fourteen years.

G. H. SPINNEY, *Hon. Librarian.*

Archæological Section.

REPORT FOR 1939.

THE activities of the Section were fully maintained until the outbreak of war, and it is a matter of keen regret to the Officers that the meetings and excursions arranged for the latter half of the year had perforce to be abandoned.

The average attendance at the excursions was 15 and the attendance at the one sectional meeting was 48.

Three of the excursions took us to famous houses, notable for their historical and architectural interest.

In January we visited the Courtauld Institute of Art, which occupies a fine Adam house on the north side of Portman Square. In April an afternoon was spent at Sir John Soane's house in Lincoln's Inn Fields, where the somewhat heterogeneous collection excited the usual lively interest and the superb Hogarth paintings were ably described by the custodian. Of Eltham Palace it is almost unnecessary to speak. Favoured by a fine day and the presence of Mr Yates, the large party had a thoroughly enjoyable afternoon. Tea was taken at Well Hall, in itself a very interesting building.

Two churches were visited—Stoke d'Abernon, under the leadership of the Chairman, and Nazing, where Mr Austin was the guide. The latter excursion was marred by bad weather but the church proved of considerable interest. A thoroughly wet afternoon also somewhat spoiled the joint excursion with the Geological Committee to Bayford. In spite

of rain, the pits were entered and the glacial deposits examined, a large North Country erratic exciting much attention and speculation.

The "Record" meeting took us to the Chapter House, Westminster, where we had the experienced and valued guidance of our Recorder, Mr G. J. B. Fox.

Two visits to museums had been arranged but only the earlier one could be carried out. This was to the Victoria and Albert Museum, when the Chairman spoke upon stained glass and drew the attention of the party to the outstanding examples in the fine collection.

The lecture given at the Sectional Meeting was "Churches of the Nativity and Holy Sepulchre," J. H. Harvey.

Lectures held under the auspices of the Section were:—"Unknown Westminster Abbey," H. Molesworth Roberts; "Prehistoric Wessex," L. V. Grinsell.

During the year the members heard with much regret of the death of their old friend, Mr Marshman Wattson, until recently an active member of this Section. He was a keen and experienced archaeologist, chiefly interested in Gothic Art, and the library of the Society has been enriched by his bequest of a considerable number of books bearing upon his favourite subject.

The Section circulates *Antiquity*, a Review of Archaeology, among its members, and hopes those who have been subscribers will continue so in the coming year.

W. C. COCKSEGE, *Chairman*.

CELIA D. COCKSEGE, *Secretary*.

Botanical Section.

REPORT FOR 1939.

TWO general meetings, held before the outbreak of hostilities, were addressed on Botanical subjects; Dr Ashby, of the Imperial Institute, gave an illustrated lecture on "Plant Fibres," and Mr J. F. Hayward, B.Sc., spoke upon "The Past History of the Plant Race."

In May the Sectional Secretary gave a talk upon "Plants of the Bible," illustrating his remarks by numerous specimens and lantern slides. Unfortunately the remaining three meetings were of necessity cancelled. The excursion syllabus was similarly curtailed but we were able to enjoy eight rambles, including one to the Rothamsted Experimental Station. The average attendance at the excursions has been 12 and at indoor meetings 31. The Section now has a membership of 143, showing a decrease of 3 below last year's figure.

The Annual Report of the Botanical Exchange Club is circulated to 16 members.

L. G. PAYNE, *Chairman*.

G. R. A. SHORT, *Hon. Secretary*.

Ecological Section.

REPORT FOR 1939.

THE past year saw considerable progress made in the survey of Limpsfield Common. A further report of 30 pages and a map were published in *The London Naturalist*, 1938, and with the outbreak of war the wisdom of publishing these reports has been emphasised. The vegetation, flora, and much of the fauna has been recorded and made available in reprint form for the use of all who can visit the Common. The records are also of historic value in view of the changing nature of the Common.

A great deal of work on insects, birds, and plants was done in the first seven months of the year, but the cessation of a reasonable train service from London prevented the continuance of the study until December, when the bird census was repeated.

Among the visitors to the Common in our company were members of the East Grinstead Natural History Society. Over a hundred naturalists have now attended these field meetings and many "unofficial" visits were made during the year.

Papers of Ecological interest were given at two general meetings; on January 17th, Mr H. N. Southern spoke on "Fluctuations in Animal Populations," and on March 14th, Messrs R. C. Amsden and J. Sankey discussed some aspects of an ecological survey in the Peaslake area. Sectional meetings were held on April 4th, when Mr R. W. Robbins inaugurated a discussion on the Limpsfield Survey, and on May 9th, when Mr M. Blackmore spoke on "Bats."

A large party of members spent a very interesting afternoon at the Rothamsted Experimental Station on April 29th in company with the Botanical Section and the Geological Committee.

The indoor meetings were attended by larger audiences and the increased membership of the Section is most encouraging.

The Journal of Animal Ecology is circulated among members of the Section.

L. PARMENTER, *Hon. Secretary.*

Entomological Section.

REPORT FOR 1939.

FIVE evening meetings were allotted to the Section during 1939; of these only three were actually held:—"Entomological Coloured Films, including the Life History of the Swallow-tail Butterfly," J. Ridley; "Mimicry and its Relation to other Forms of Protective Colour-

ing in Insects," Professor G. D. Hale Carpenter (Bacot Memorial Evening); "Collecting and Preservation of Insects," Dr I. H. H. Yarrow and K. M. Guichard.

Eight excursions were arranged, but two of these were cancelled. The average attendance was six.

At the Annual Exhibition the entomological exhibits occupied a large table and living insects were well represented.

The reference collections have been increased this year and Mr P. Freeman very kindly arranged the British Orthoptera. The library, too, has received several valuable additions to the entomological literature.

ROBERT B. BENSON, *Chairman.*

K. M. GUICHARD, *Hon. Secretary.*

Ornithological Section.

REPORT FOR 1939.

MEMBERSHIP.

ON December 31, 1939, there were 407 members on the Sectional roll, three more than on December 31, 1938. Thirty country and eleven branch associates are included in this total.

INDOOR MEETINGS.

During the eight effective months of 1939 the Section provided lecturers at two general meetings and the films at the Annual Exhibition, and held four sectional meetings. At the general meetings we heard Mr G. R. Mountfort on "Ten Years of Bird-Watching in France" and Mr R. Preston Donaldson, Secretary of the Royal Society for the Protection of Birds, on "The History of Bird Protection." At the Annual Exhibition Mr A. S. Phillips showed two films in colour, "The Shetlands" and "In Wood and Spinney." At the four sectional meetings: in February Miss C. M. Acland spoke on "Birds in Poland"; in March Messrs R. C. Homes and C. W. G. Paulson discussed "The Identification of Waders"; in July short papers were read by members as follows—Mr W. D. Melliish on "The Birds of Hendon Park Farm," Mr J. E. Roberts on "The Birds of Bushy Park," and Mr L. Parmenter on "Census Work on Beddington Sewage Farm"; and in August the annual discussion on the work of the section was held. Attendances at sectional meetings averaged 72.

It was with the greatest regret that we were compelled, owing to the outbreak of war, to postpone the pleasure of hearing Mr Eric Hosking on "Nature in the Wild," Mr W. B. Alexander on "British Shearwaters and Petrels," and Miss J. M. Ferrier on "Some Observations on the Birds of Norfolk."

ANNUAL EXHIBITION.

The Section was again allocated Hall 32, the Society's regular meeting room, for its contribution towards the Annual Exhibition. The total number of exhibitors this year was thirteen, and, as in past years, a very high standard was maintained, thanks to the exertions of Mr G. E. Manser. Among the principal exhibitors were Miss Hibbert-Ware with a most varied collection of bird-pellets, Mr Roland Green with some of his original paintings, and Miss E. P. Leach, who demonstrated the ringing scheme of the British Trust for Ornithology. Special mention should also be made of the photographic exhibits, which were provided by Messrs Eric Hosking, J. E. Roberts, and G. R. Mountfort, and of some of the original paintings for the new *Handbook of British Birds*, kindly lent for the occasion by Mr H. F. Witherby. Other exhibitors included Miss Bessemer, Miss Hose, and Messrs Hale, Stuart Boardman, and Ampleford, the last-named representing the Plumage Act Group. Full use was also made of the Society's own collections of skins and photographs.

THE OFFICERS OF THE SECTION.

At the beginning of the year Mr R. C. Homes became Chairman of the Section in succession to Mr L. Parmenter, Mr R. S. R. Fitter succeeded Mr Homes as Recorder, Mr D. A. T. Morgan succeeded Mr Fitter as Hon. Secretary, and Mr E. R. Parrinder became Field Meeting Secretary in the place of Mr Morgan. Mrs Clanchy and Messrs R. W. Hale and G. E. Manser continued to fill the offices of Reading Circles and Book Fund Secretary, Bird Ringing Secretary, and Sectional Curator respectively. The Committee during 1939 consisted of Miss C. E. Longfield and Messrs C. L. Collenette, R. L. Collett, P. W. E. Currie, L. Parmenter, and C. W. G. Paulson.

THE LONDON BIRD REPORT.

The *London Bird Report* for 1938 was soon sold out, but a few copies of the 1936 and 1937 Reports are still available. Full details of the work of the Records Committee and an account of the Section's bird ringing activities will be found in the *London Bird Report* for 1939.

FIELD MEETINGS.

Twenty-three field meetings were held between January and the outbreak of war in September. 141 different members attended these meetings, the average attendance being 15 and the highest 32. Among the 115 species identified were the hooded crow, siskin, pintail, great northern and red-throated divers, curlew-sandpiper, and black tern. The districts visited included Tring and Walthamstow reservoirs, the Thames estuary at High Halstow, Frensham, and Richmond and Bushy Parks. Two evening meetings were arranged to hear the nightjar, one north and one south of the Thames, and both were well attended, as was the all-night meeting for the dawn chorus.

READING CIRCLES AND BOOK FUND.

The eight reading circles for *British Birds* have now only 56 members, eight resignations, which may be attributed to the war, having taken place at the end of the year. The subscription is half-a-crown per annum, and new members to fill these gaps would be welcomed. Publication of the *Scottish Naturalist* was suspended at the outbreak of war, so that this reading circle is in abeyance. The Book Fund, to which the profits from the reading circles accrue, has this year bought and presented to the Library the third volume of the new *Handbook of British Birds*.

CURATOR'S REPORT.

This year the reference collections of skins and photographs have shown a marked increase. The totals are now 273 skins and 320 photographs, as against 260 skins and 309 photographs at the same time last year. Perhaps the most outstanding addition this year has been the gift of a large collection of skins by Mr A. Holte Macpherson. This collection consists of several hundred skins of both common and rare birds. Unfortunately, owing to the outbreak of war the work of sorting and cataloguing these skins has been held up. The figures given above do not, of course, include this collection, which will possibly be kept separate. Thanks are also due to the following, who have kindly presented skins:—The British Museum (N.H.), Miss M. M. Hose, and Messrs R. H. Bishop, E. M. Cawkell, R. C. Homes, Oliver Pike, and C. A. White. The species given include the peregrine falcon, sparrow-hawk, long-tailed duck, cormorant, and bar-tailed godwit. The skins have been prepared by Messrs P. J. Hanson and G. E. Manser, to whom thanks are also due. Additions to the photographic collection have been made by Mrs Rait Kerr, Miss Hose, and Mr C. A. White. The wing collection has made good headway during 1939, and there is now a good selection available for reference purposes.

R. C. HOMES, *Chairman*.

R. S. R. FITTER, *Acting Hon. Secretary*.

Plant Galls Section.

REPORT FOR 1939.

THE Section held two indoor meetings at which papers were read:—
24th January—Mr M. Niblett read notes on various species of Cynipidae, and Mr J. Ross read a paper on *Neuroterus schlechtendali*, *Andricus amenti* and *A. xanthopsis*; 27th June—Mr M. Niblett read a paper on the Genus *Rhabdophaga*.

Three Field Meetings have been carried out:—21st May to Worms Heath, 3rd June to Coulsdon, and 17th June to Coldharbour. A good deal of field work has been carried out and many observations made, with the result that some species were found which may be additions to the British list.

Intensive work on the Cynipidae has led to further information on obscure points.

Mr Niblett's work on the British Trypetidae was summarised in an article in the *Entomologists' Record* for May.

J. Ross, *Chairman*.

H. J. BURKILL, *Secretary*.

Ramblers' Section.

REPORT FOR 1939.

MEMBERSHIP of the Section is now about 60. Number of indoor meetings during the year, 3; average attendance, 43. Number of outdoor meetings during the year, 12; average attendance, Sundays 12, Saturdays 17. Number of committee meetings, 2; average attendance, 7.

The Section was responsible for arranging one of the Society's general meetings, when Miss C. Hamilton gave a lecture on "Some Aspects of Modern Sweden." Of the two Sectional meetings held, one took the form of a lecture on "Welsh Wales," given by Mrs A. Hatley, who accompanied her very fine lantern slides, many of them reproductions from her own water-colour paintings, with some delightful vocal illustrations. The other lecture was given by Mr A. J. Mason on "The Pilgrim's Way," when he showed a collection of slides which revealed his artistry as a photographer.

The reading circle of *The Countryman* continues, and is open to all members at a yearly subscription of 1s. The Journal of the Commons, Open Spaces and Footpaths Preservation Society is also circulated among members of the Section.

The collection of photographs of topographical interest in and around the Society's area, which was started last year, has developed and, under the artistic eye of the Curator, has been mounted. We appeal to everybody to keep by them all suitable contributions.

The rambles have been as varied as possible and were well attended. We have taken the opportunity of joining with other sections of the Society in some of the excursions, and have also been very pleased to meet members of the British Empire Naturalists' Association and the Battersea Field Club in joint rambles. On one occasion the Section used a "Ramblers' Excursion" train, whereby we were able to explore a less frequented part of the country around Eridge.

We should like to take this opportunity of thanking all those Leaders who have taken so much trouble in arranging our rambles. To them we owe some lovely memories of the beauties of nature and the countryside, which we shall all carry with us and treasure until we are once again able to join the rambles.

JOHN E. S. DALLAS, *Chairman*.

FRANCES E. JOHNS, *Hon. Secretary*.

Geological Committee.

REPORT FOR 1939.

INTEREST and numbers have been maintained, although the Committee has not yet been able to obtain the status of a Section. On 7th March Dr A. J. Dollar, Ph.D., gave an interesting talk on "Practical Field Geology," which was well attended. A small party explored some gravel pits in Herts. on the 11th March, and some quite good finds were made. Another small party had an excellent and instructive Sunday, this time on the 21st May, under Dr A. J. Dollar, in the neighbourhood of Guildford and Aldbury Downs. This was an excellent field meeting.

Owing to the outbreak of the war the meeting proposed to be held on 3rd October, and to be addressed by Mr H. G. Smith, B.Sc., A.R.C.S., F.G.S., was cancelled.

Besides these, two field meetings were held in conjunction with the Ecological Section at Limpsfield Common, and some soil borings were made.

ARTHUR S. GARRIDO, *Hon. Secretary.*

Chingford Branch.

REPORT FOR 1939.

THE Branch opened its programme for the year on January 9th with another fine ciné show by Dr A. H. Murch entitled "More Feathered Families." On subsequent meetings during this session the following papers were read:—"Economics of Plant Life," by G. H. Spinney; "The Bird in the Bush," by Stuart Boardman; and "Some Beetles of Epping Forest," by W. O. Steel. These lectures were illustrated with lantern slides and exhibits and our thanks are due to the lecturers for their interesting talks and also to Miss Mathieson for her monthly weather report. The average attendance at indoor meetings was 23, slightly lower than the average for the whole of 1938. Five field meetings were arranged during the summer months, three in conjunction with the Ornithological Section, which were well supported, and two others which had to be cancelled.

The programme for the second half of the year had not commenced when war broke out, and it was decided to cancel all forthcoming lectures.

Membership of the Branch has been satisfactorily maintained during the period of activity this year and is now two up on the corresponding time last year.

E. T. NICHOLSON, *Branch Secretary.*

Referees.

THE following have kindly consented to act as Referees on questions of identification and for advice in various branches of Natural History.

It should be clearly understood that Referees cannot undertake work of an onerous nature, such as the determination of collections. Postage for reply should always be enclosed and a request inserted for the return of the specimens if desired.

Members are warned that during war-time the services of many of our Referees may cease to be available.

BOTANY.

General.—R. W. Robbins, Bullens Lee, Pains Hill, Limpsfield, Surrey.
Genus *Rosa*.—E. B. Bishop, Lindfield, Marshall Road, Godalming, Surrey.

Umbelliferae.—L. G. Payne, 22 Marksbury Avenue, Richmond, Surrey.
Rushes and Sedges.—E. B. Bishop, Lindfield, Marshall Road, Godalming, Surrey.

Grasses.—R. W. Robbins, Bullens Lee, Pains Hill, Limpsfield, Surrey.
Ferns and Horsetails.—L. G. Payne, 22 Marksbury Avenue, Richmond, Surrey.

Mosses and Liverworts.—J. Ross, 23 College Gardens, Chingford, E.4.
Lichens.—I. M. Lamb, B.Sc., F.L.S., British Museum (Natural History), S. Kensington, S.W.7.

Fungi.—J. Ramsbottom, O.B.E., M.A., Dr.Sc., British Museum (Natural History), S. Kensington, S.W.7.

Mycetozoa.—J. Ross, 23 College Gardens, Chingford, E.4.

Medicinal Plants.—G. R. A. Short, 36 Parkside Drive, Edgeware, Middlesex.

Aquatic Plants.—H. J. Jeffery, A.R.C.S., F.L.S., 14 Coppetts Road, Muswell Hill, N.10.

Algae (including Seaweeds).—A. D. Cotton, O.B.E., F.L.S., Royal Botanic Gardens, Kew, Surrey.

GEOLOGY.

John F. Hayward, B.Sc., 17 Heathcote Grove, Chingford, E.4.

MINERALOGY.

F. A. Bannister, M.A., 34 Monahan Avenue, Purley, Surrey.

PALAEONTOLOGY.

E. I. White, Ph.D., F.G.S., British Museum (Natural History), S. Kensington, S.W.7.

INVERTEBRATA.

- Mollusca.—J. R. le B. Tomlin, M.A., F.R.E.S., 23 Boscobel Road, St Leonards-on-Sea, Sussex.
- Protozoa, Porifera (Sponges), Coelenterata (Jelly-fish, Sea-anemones and Corals), Vermes, Polyzoa, Brachiopoda, Echinodermata.—M. Burton, M.Sc., F.Z.S., British Museum (Natural History), S. Kensington, S.W.7.
- Crustacea.—Miss Isabella Gordon, D.Sc., Ph.D., British Museum (Natural History), S. Kensington, S.W.7.
- Myriapoda (Centipedes and Millipedes).—Rev. S. G. Brade-Birks, M.Sc. (Manch.), D.Sc. (Lond.), F.Z.S., S.E. Agricultural College, Wye, Kent.
- Insecta :—General.—C. L. Collenette, F.R.E.S., 15 Warren Avenue, Richmond, Surrey.
- Thysanura (Bristle-tails) and Collembola (Spring-tails).—J. M. Brown, B.Sc., F.R.E.S., "Carterknowle," Thorpe Lane, Robin Hood's Bay, Yorkshire, N.R.
- Orthoptera (Earwigs, Cockroaches, Grasshoppers, Crickets, etc.).—P. Freeman, B.Sc., A.R.C.S., Royal College of Science, Exhibition Road, S.W.7.
- Plecoptera (Stone-flies) (*Specimens in fluid only*).—M. E. Mosely, 43 Lansdowne Crescent, W.11.
- Psocoptera (Book-lice, etc.).—D. E. Kimmins, 16 Montrave Road, Penge, S.E.20.
- Ephemeroptera (May-flies).—D. E. Kimmins, 16 Montrave Road, Penge, S.E.20.
- Odonata (Dragon-flies).—E. B. Pinniger, 19 Endlebury Road, Chingford, E.4.
- Thysanoptera (Thrips).—Edward R. Speyer, M.A., Experimental and Research Station, Cheshunt, Herts.
- Hemiptera (Bugs, Cicadas, Leaf-hoppers, etc.).—W. E. China, M.A., British Museum (Natural History), S. Kensington, S.W.7.
- Neuroptera (Lace-wings, Ant-lions, Alder and Scorpion-flies, etc.).—D. E. Kimmins, 16 Montrave Road, Penge, S.E.20.
- Trichoptera (Caddis-flies) (*Specimens expanded only*).—M. E. Mosely, 43 Lansdowne Crescent, W.11.
- Lepidoptera (Butterflies and Moths).—R. W. Robbins, Bullens Lee, Pains Hill, Limpsfield, Surrey.
- Coleoptera (Beetles).—K. G. Blair, D.Sc., F.R.E.S., 11 Durrington Avenue, S.W.2.
- Hymenoptera (Ants, Bees, Wasps, etc.).—R. B. Benson, M.A., F.R.E.S., British Museum (Natural History), S. Kensington, S.W.7.
- Diptera (Flies, Gnats and Midges).—L. Parmenter, F.R.E.S., 94 Fairlands Avenue, Thornton Heath, Surrey.
- Arachnida (Spiders, Scorpions, Harvesters, Mites, etc.).—E. A. Robins, F.L.S., 19 Cassiobury Park Avenue, Watford, Herts.

VERTEBRATA.

Fishes.—J. R. Norman, F.Z.S., British Museum (Natural History), S. Kensington, S.W.7.

Amphibians and Reptiles.—L. G. Payne, 22 Marksbury Avenue, Richmond, Surrey.

Birds:—Distribution and Identification. For the Society's Area.—The Recorder, R. S. R. Fitter, F.Z.S., 81 Ridgmount Gardens, W.C.1.

Outside Society's Area.—The Hon. Secretary of Records Committee, R. C. Homes, 17 Park Lawn Avenue, Epsom, Surrey.

British Trust for Ornithology.—The Society's Representative, R. S. R. Fitter, address as above.

Anatomy.—G. Carmichael Low, M.A., M.D., F.R.C.P., F.Z.S., M.B.O.U., 86 Brook Street, Grosvenor Square, W.1.

Nests and Eggs.—J. E. Roberts, B.Sc., 24 Warren Drive, Surbiton, Surrey.

Mammals.—M. A. C. Hinton, F.R.S., British Museum (Natural History), S. Kensington, S.W.7.

PLANT GALLS.

H. J. Burkill, M.A., F.R.G.S., 3 Newman's Court, Cornhill, E.C.3.

ECOLOGY.

L. Parmenter, F.R.E.S., 94 Fairlands Avenue, Thornton Heath, Surrey.

CHEMISTRY.

L. Eynon, B.Sc., F.I.C., Fernleigh, Hall Lane, Upminster, Essex.

RIGHTS OF WAY, FIELD PATHS, Etc.

Sir Lawrence Chubb, 71 Eccleston Square, Westminster, S.W.1.

Papers Read to the Society during 1939.

WE wish to offer our grateful thanks to all those members and visitors who have given us so much pleasure by lecturing to us.

No General or Sectional meetings were held after September 3.

GENERAL MEETINGS.

Jan. 3—"Plant Fibres," M. Ashby, Ph.D., D.I.C., A.R.C.S.

., 17—"Fluctuations in Animal Populations," H. N. Southern, M.A.

Feb. 14—"Some Aspects of Modern Sweden," Miss Cicely Hamilton.

., 28—"Unknown Westminster Abbey," ... H. Molesworth Roberts.

Mar. 14—"Aspects of an Ecological Survey,"

R. C. Amsden and J. Sankey.

Mar. 28—BACOT MEMORIAL EVENING.

“Mimicry, and its relation to other forms of Protective Colouring in Insects,” ... Prof. G. D. Hale Carpenter, D.M.

April 18—ANNUAL EXHIBITION.

Bird Films in Colour:—(a) “The Shetlands,” A. S. Phillips.
(b) “In Wood and Spinney.”

May 2—“Ten Years of Bird Watching in France,”
G. R. Mountfort, M.B.O.U.

„ 16—“Prehistoric Wessex,” L. V. Grinsell.

June 6—“The History of Bird Protection,”
R. Preston Donaldson, M.B.O.U.

„ 20—“The Past History of the Plant Race,” J. F. Hayward, B.Sc.

SECTIONAL MEETINGS.

Jan. 10—RAMBLERS. “Welsh Wales,”

Mrs Anne Hatley, B.Sc., F.R.G.S., R.D.S.

„ 24—PLANT GALLS. Exhibits and Short Notes.

„ 31—ARCHAEOLOGY. “The Churches of the Nativity and Holy Sepulchre,” J. H. Harvey.

Feb. 7—ENTOMOLOGY. “Entomological Coloured Films, including the Life History of the Swallow-tail Butterfly,” ... J. Ridley.

„ 21—ORNITHOLOGY. “Birds in Poland,”
Miss C. M. Acland, M.B.O.U.

Mar. 7—GEOLOGY. “Practical Field Geology,” J. Dollar, Ph.D.

„ 21—ORNITHOLOGY. “The Identification of Waders,”
R. C. Homes and C. W. G. Paulson.

April 4—ECOLOGY. “The Limpsfield Survey,” R. W. Robbins.

„ 25—RAMBLERS. “The Pilgrim’s Way,” ... A. J. Mason, F.R.S.A.

May 9—ECOLOGY. “Bats,” M. Blackmore.

„ 23—BOTANY. “Plants of the Bible,” G. R. A. Short, Ph.C.

June 13—ENTOMOLOGY. “Collecting and Preservation of Insects,”
I. H. H. Yarrow, Ph.D., F.R.E.S., and K. M. Guichard.

„ 27—PLANT GALLS. “The Genus *Rhabdophaga*,” M. Niblett.

July 11—ORNITHOLOGY. Short papers by members:

(a) “The Birds of Hendon Park Farm,” W. D. Melliush.

(b) “The Birds of Bushy Park,” J. E. Roberts, B.Sc.

(c) “Census Work on Beddington Sewage Farm,”

L. Parmenter, F.R.E.S.

Aug. 15—ORNITHOLOGY. Annual Discussion of the Work of the Section.

A CORRECTION.

In the list of papers read to the Society in 1938, published in *The London Naturalist* for 1938, p. 97, it was stated that at the Annual Exhibition Mr C. Maresco Pearce lectured on “Anti-Scrape.” We are reminded that in the event Mr Maresco Pearce was unable to be present, and in his place Major T. G. Davidson, F.S.A., very kindly lectured on “The Sculpture of the Middle Ages.” We offer our apologies to the gentlemen concerned for having overlooked this change.

STATEMENT OF ACCOUNTS 1939: GENERAL ACCOUNT.

Balance, 1st November 1938	...	...	...	...	...	£72 14 11	Rent
Donation for Botanical Books	...	...	...	...	...	15 0 0	Syllabus Expenses (Printing and Postages)
Donation	...	...	...	...	...	2 2 0	General Printing and Stationery
Note-paper, etc., Sold	...	...	...	...	...	0 16 9	Postages (Secretary)
Interest on Post Office Account	...	...	...	...	...	2 0 1	Postages (Treasurer)
Interest on £75 War Loan	...	...	...	...	...	2 12 6	Insurance
Interest on National Building Society Shares	...	...	...	...	...	2 7 4	Gratuities
Subscriptions and Entrance Fees	...	...	...	...	...	259 1 1	Subscriptions—
							South Eastern Union of Scientific Societies
							Commons, Open Spaces and Footpaths Pre-
							servation Society
							British Trust for Ornithology
							Pedestrians' Association
							Bird Ringing Scheme
							Sectional Expenses—Ramblers
							Entomology
							Plant Galls
							Ornithology
							Botany
							Archaeology
							Ecology
							Geological Committee
							Expenses of Cinematographic Displays
							Annual Exhibition Expenses
							Secretary's Honorarium
							Chingford Branch Expenses
							Sundry Expenses
							Curator's Expenses
							Bacot and Special Notices
							Botanical Books Bought
							Carried forward, £356 14 8

<i>Brought forward, £356 14 8</i>		<i>Brought forward, £180 10 11</i>	
Transfer to <i>London Naturalist</i> Account	...	...	82 1 10
Transfer to Reserve Account	...	...	10 0 0
Balance at Bank, 31st October 1939	...	...	84 1 11
		<u>£356 14 8</u>	

LONDON NATURALIST ACCOUNT.

Donations	...	...	£5 2 6	<i>London Bird Report, Advertising, etc.</i>	...	...	£1 13 0
Sales of <i>London Naturalist</i>	...	...	1 6 3	Printing and Postage of <i>London Naturalist</i>	...	...	99 8 4
Sales of <i>London Bird Report</i>	...	...	4 12 11				
Reprints and Maps	...	...	1 15 4				
Advertisements	...	...	6 2 6				
Transfer from General Account	...	...	82 1 10				
			<u>£101 1 4</u>				

LIFE COMPOSITION ACCOUNT.

Balance, 1st November 1938	...	...	£145 0 0	Balance, 31st October 1939—			
				£75 3½ per cent. Conversion Loan	...	£75 0 0	
				National Building Society	...	70 0 0	
			<u>£145 0 0</u>			<u>£145 0 0</u>	
						<u>£145 0 0</u>	

RESERVE ACCOUNT.

Balance, 1st November 1938	...	...	£110 0 0	Balance, 31st October 1939—			
Transfer from General Account	...	...	10 0 0	At Post Office	...	...	£120 0 0
			<u>£120 0 0</u>				<u>£120 0 0</u>

Audited and found correct, 25th November 1939.

LEWIS EYNON,
J. ROSS, *Auditors.*

F. G. DELL, *Treasurer.*

List of Members.

(Corrected up to 27th May 1940.)

It is particularly requested that Members will inform the Secretary as soon as possible of any change of address.

Honorary President:

PROF. SIR FREDERICK GOWLAND HOPKINS, O.M., M.A., M.D., F.R.C.P., F.R.S.

Honorary Vice-Presidents:

SIR LAWRENCE CHUBB. E. A. COCKAYNE, M.A., D.M., F.R.C.P., F.R.E.S.
 PROF. M. GREENWOOD, D.Sc., F.R.S., F.R.C.P. A. HOLTE MACPHERSON,
 B.C.L., M.A., F.Z.S. L. B. PROUT, F.R.E.S. J. ROSS.

Honorary Members:

- 1916 Brown, A., F.Z.S., 44 Ravensdale Road, N.16. (Arch., Geol., Orn., R.)
 1933 Bryce, E. J., Nelson Road, Killara, Sydney, N.S.W. (Zoo.)
 1927 Le Souef, A. S., C.M.Z.S., R.A.O.U., Taronga Zoological Park Trust, Sydney, Australia.

Members:

- 1922 Aldred, Miss M., Flat 5, 21 Ladbroke Gardens, W.11. (Orn.)
 1928 Alexander, O. A., 35 Ellington Road, Hounslow, Middlesex. (Ent.)
 1939 Allen, Miss D., 12 Plender Street, N.W.1.
 1937 Alston, A. H. G., B.A., F.L.S., British Museum (Natural History), S.W.7. (Bot.)
 1932 Angell, Miss K. W., at 104 Broxholm Road, S.E.27. (Orn., Ent., R., Ecol., Bot., Pl. G.)
 1932 Arbon, Mrs J. A., Brookside, Eversley Park Road, N.21. (Arch.)
 1915 Aris, E. A., F.Z.S., 9 Oak Avenue, Priory Road, N.8. (Lep.)
 1932 Arnold, Miss W., 43 The Quadrant, S.W.20. (Orn.)
 1939 Ashby, C. B., 20 Denmark Road, Carshalton, Surrey. (Orn.)
 1937 Austin, H. W., c/o 66 Warminster Road, S.E.25. (Orn.)
 1892 Austin, S., F.Z.S., 43 Darenth Road, N.16. (Orn., Arch., R., Ecol., Bot.)
 1931 Axford, W. G., Surgeon Rear Admiral, C.B., F.L.S., 5 King Edward Mansions, 212a Shaftesbury Avenue, W.C.2. (Bot.)
 1931 Back, Dr Marjorie, 10 Great George Street, S.W.1. (Bot., Orn.)
 1929 Baggallay, Miss J., 55 Ridgway Place, S.W.19. (Orn.)
 1929 *Bagnall, R. S., D.Sc., F.R.S.E., 9 York Place, Edinburgh. (Pl. G., Ent., Bot.)
 1927 Baily, Miss A. R., F.Z.S., Cressex Lodge, Binfield, Berks. (Arch., Bot., Orn., Ent., Pl. G., R.)

- 1924 *Baker, E. C. Stuart, J.P., O.B.E., F.Z.S., F.L.S., M.B.O.U.,
H.F.A.O.U., 6 Harold Road, S.E.19. (Orn.)
- 1934 Banks, H., 172 Cromwell Road, Hounslow, Middlesex. (Bot.,
Orn.)
- 1927 Barclay-Smith, Miss P., F.Z.S., M.B.O.U., Park Lodge, Hervey
Road, S.E.3. (Orn.)
- 1926 Barnes, Mrs E. C., M.B.O.U., Hungerdown, Seagry, Wilts.
(Orn., Bot., Ecol.)
- 1937 Barnett, R. L., 30 Hans Road, S.W.3. (Bot., Orn.)
- 1933 Bastian, Miss S., 83 Gower Street, W.C.1.
- 1903 *Battley, Mrs, 1 Sydney Road, Guildford, Surrey.
- 1932 Bayliss, C. V., 34 Golders Gardens, N.W.11. (Arch.)
- 1915 Bayne, C. S., Savage Club, 1 Carlton House Terrace, S.W.1.
(Orn., Ecol.)
- 1936 Beckwith, Major W. M., D.S.O., 59 Albert Hall Mansions, S.W.7.
(Orn.)
- 1929 *Benson, R. B., M.A., F.L.S., F.R.E.S., British Museum (Natural
History), S.W.7. (Bot., Orn., Ent., esp. Sawflies, Ecol., R.,
Pl. G.)
- 1932 Bentham, C. H., Eothen, Epsom Lane, Tadworth, Surrey. (Orn.)
- 1939 Berry, P., M.D., Hillside, Bessels Green, near Sevenoaks, Kent.
- 1937 Best, Miss M. G., M.R.C.S. (Eng.), L.R.C.P. (Lond.), 115 Wid-
more Road, Bromley, Kent. (Orn.)
- 1940 Beven, G., Cromer Hyde, Central Road, Morden, Surrey. (Orn.)
- 1932 Binley, Miss E. M., 197 Camberwell Grove, S.E.5. (Orn., R.)
- 1935 Birnie, Miss V. M. O., 23 Hillway, N.6. (Orn., R.)
- 1937 Blackett, Miss F. R. F., Royal Empire Society, Northumberland
Avenue, W.C.2. (Orn.)
- 1930 Blair, K. G., D.Sc., F.R.E.S., 11 Durrington Park Road,
S.W.20. (Ent.)
- 1939 Blake, E. A., 16 Lindsay Road, Worcester Park, Surrey. (Orn.)
- 1937 Blake, F. W., 16 Lindsay Road, Worcester Park, Surrey. (Orn.)
- 1938 Blay, N. A., L.D.S., R.C.S. (Eng.), 27 Shrubbery Gardens, N.21.
(Ecol., Orn., R.)
- 1939 Bolton, J. R., 49 Downs Road, E.5. (Orn.)
- 1939 Bowman, Miss B. M., 33 Lessar Avenue, S.W.4. (Ent.)
- 1904 Bradley, S. W., 4 Lucton's Avenue, Buckhurst Hill, Essex.
(Bot., Ent., Orn.)
- 1932 Braithwaite, Miss D. M., 18 Warren Road, E.4. (Orn.)
- 1910 Braithwaite, Miss N. A., 18 Warren Road, E.4.
- 1933 Brazil, Miss F., Penby, Marshalswick Lane, St Albans, Herts.
(Orn.)
- 1940 Breckin, Mrs E. M., Hayling, Cedars Avenue, Mitcham, Surrey.
(Arch., Ecol., Mycol.)
- 1930 Brend, Wm. A., M.A., M.D., B.Sc., 14 Bolingbroke Grove,
S.W.11. (Arch., Orn., R.)
- 1937 Brightwell, L. R., F.Z.S., White Cottage, Chalk Lane, East
Horsley, Surrey. (Marine Life.)

- 1933 Bromley, Miss B., 12a Eton Road, N.W.3. (Orn., R.)
- 1937 Brown, Miss B. E., Gresham Cottage, Granville Road, Limpsfield, Surrey. (Ecol., Orn.)
- 1936 Brown, E. C., M.Sc. (Lond.), 120 Durlston Road, Kingston-on-Thames, Surrey. (Bot., Ecol.)
- 1926 Browne, Miss C. H., 11 St Mary's Walk, Harrogate, Yorks. (R., Arch., Orn., Bot.)
- 1940 Browne, Miss E. Gore, 3 Claremont House, Lithos Road, N.W.3. (Orn.)
- 1938 Buck, F. D., 49 Elthorne Road, N.19. (Col., Ecol.)
- 1938 Budden, E. C., 253 Latymer Court, W.6. (Orn.)
- 1930 Burgham, Miss J. E., 4 Regent Square, W.C.1. (Orn., Geol., R.)
- 1915 Burkill, H. J., M.A., F.R.G.S., 3 Newman's Court, Cornhill, E.C.3. (Pl. G., Lep., Bot., Geol., Orn., R., Ecol.)
- 1933 Burton, M., M.Sc., F.Z.S., 55 Pope's Grove, Twickenham, Middlesex. (Porifera, Orn.)
- 1935 Butterworth, Miss M. H., Dyer's Lane, S.W.15. (Orn., Bot., Ecol.)
- 1938 Buxton, Miss L. R., Newlands, Stanstead Abbots, Ware, Herts. (Orn.)
- 1932 Caiger-Smith, Miss J., 23 Hornton Street, W.8. (Orn.)
- 1938 Calvert, G. W., c/o Tyresoles Ltd., Palace of Engineering, Wembley, Middlesex. (Orn.)
- 1928 *Campbell, J. M. H., M.D., 47 Arkwright Road, N.W.3. (Orn., R.)
- 1912 Capleton, A., 95 Monkham's Drive, Woodford Green, Essex. (Mam., Orn., R., Bot., Ecol.)
- 1933 Carter, J. S., Ph.D., M.Sc., F.I.C., 26 St John's Road, N.W.11. (Orn.)
- 1939 Carter, N. W. J., 1 Wood Street, East Grinstead, Sussex. (Ecol., Ent.)
- 1932 Castell, C. P., 52 Graham Road, S.W.19. (Bot., Geol., Ecol.)
- 1936 Cawkell, E. M., 74 Alfred Road, Clive Vale, Hastings, Sussex. (Orn.)
- 1936 Chandler, K. R., 33 Granville Road, Limpsfield, Surrey. (Orn., Ecol.)
- 1930 Chandler, S. E., D.Sc., F.L.S., 59 Anerley Park, S.E.20. (Bot., Ecol.)
- 1938 Chave, Mrs E. L., 15 Glenhurst Rise, S.E.19. (Orn.)
- 1938 Chave, S. P. W., 15 Glenhurst Rise, S.E.19. (Orn.)
- 1931 Chubb, Sir Lawrence, 71 Eccleston Square, S.W.1. (R.)
- 1927 Clanchy, Mrs B. L., 12 Cranbourne Drive, Pinner, Middlesex. (R., Orn.)
- 1927 Clanchy, D. H., 12 Cranbourne Drive, Pinner, Middlesex. (R., Orn., Ecol.)
- 1929 Coates, Miss N. H., Woodhouse, Beaumont Road, S.W.19. (Orn., Bot.)
- 1904 Cockayne, E. A., M.A., D.M., F.R.C.P., F.R.E.S., 16 Westbourne Street, W.2. (Lep., Biol.)

- 1937 Cockburn, T. A., M.D., Town Hall, Barking, Essex. (Orn.)
- 1925 Cocksedge, W. C., 6 Aldersmead Road, Beckenham, Kent. (Orn., Arch., Bot., Ecol., Geol.)
- 1929 Cocksedge, Mrs, 6 Aldersmead Road, Beckenham, Kent. (Arch., Bot., Ecol., Geol.)
- 1907 Collenette, C. L., F.R.G.S., F.R.E.S., 15 Warren Avenue, Richmond, Surrey. (Ent., Orn., Bot., Ecol.)
- 1932 Collenette, Mrs C. L., 15 Warren Avenue, Richmond, Surrey. (Orn.)
- 1933 Collett, G. W., 84 Jermyn Street, S.W.1. (Orn., Ecol., R., Bot.)
- 1936 Collett, R. L., 165/20 Abbey Road, N.W.8. (Orn.)
- 1936 Colyer, W. L., 8 The Mount, New Malden, Surrey. (Orn., Ecol.)
- 1914 Connoll, Miss E., 76 Dale View Crescent, E.4. (Orn.)
- 1937 Cooke, H. O. P., Lamorna, Redruth, Cornwall. (Ent., Orn.)
- 1904 Cooke, Rev. P. H., B.A., 26 Woodfield Close, Ashted, Surrey. (Bot., Arch.)
- 1934 Coon, F. A. H., 7 Grenville Mansions, Hunter Street, W.C.1. (Orn.)
- 1938 Cooper, J. M., Fairview, Higher Drive, Purley, Surrey. (Orn.)
- 1939 Coote, F. D., F.R.E.S., 32 Wickham Avenue, Cheam, Surrey. (Lep.)
- 1939 Copithorne, Surgeon Lieut. R. E. C., R.L.V.R., M.R.C.S., L.R.C.P., D.C.H., H.M.S. Ark Royal, c/o G.P.O., London.
- 1937 Cornwallis, R. K., Collow Abbey, Wragby, Lincs. (Orn.)
- 1939 Couper, Miss L., 6 St John's Road, N.W.11. (Arch.)
- 1932 Creighton, Miss M. B., 78 Highview Avenue, Edgware, Middlesex. (Bot., Biol., Pl. G.)
- 1937 Crispin, G. H., Meadowcroft, Abbot's Langley, Herts.
- 1936 Crompton, Miss C. E., Sesame Imperial and Pioneer Club, 49 Grosvenor Street, W.1. (Arch., Orn.)
- 1931 Crook, W. M., F.R.G.S., F.Z.S., 6 St Andrew's Place, N.W.1. (Orn.)
- 1927 Cross-Rose, F., 20 Woolstone Road, S.E.23. (Orn.)
- 1892 Culpin, M., M.D., F.R.C.S., 12 Park Village East, N.W.1. (Biol.)
- 1930 Cunningham, J., M.B.O.U., Drinagh, Kensington Road, Knocke, Belfast. (Orn.)
- 1936 Currie, P. W. E., 102 Burdon Lane, Belmont, Sutton, Surrey. (Orn., Ecol.)
- 1939 Cust, Mrs M. V. J., 13 Tedworth Street, S.W.3. (Orn.)
- 1892 Cyriax, R. C., 23 Aberdare Gardens, N.W.6. (Arch., Aryan question, Indo-European languages.)
- 1936 Daffarn, J. D., 20 Woodside Avenue, N.6. (Orn.)
- 1920 *Dallas, J. E. S., 29 Clinton Road, Leatherhead, Surrey. (Orn., Bot., Arch., Ecol., R., Pl. G.)
- 1925 *Dallas, Mrs Rosa F., 29 Clinton Road, Leatherhead, Surrey. (Arch., Bot., Geol., Orn., Ecol., R.)
- 1940 Darlington, Miss I., M.A., 39 Craven Avenue, W.5. (Arch., Bot., Orn.)

- 1933 Davies, Miss E. B., Graffham, Petworth, Sussex. (Orn., Ent.)
- 1938 Davies, T. H., Flat 2a, 91 Cromer Street, W.C.1. (Bot., Ent., Orn., Pl. G.)
- 1937 Davis, A., 188 Nether Street, N.3.
- 1932 Davis, Miss R., 118 College Road, S.E.21. (Orn., R.)
- 1926 Deane, Miss M. B. H., c/o Westminster Bank Ltd., Tangier, Morocco. (Orn.)
- 1910 Dell, F. G., 55 Russell Road, Buckhurst Hill, Essex. (P. L., Micr., Orn., R.)
- 1932 Denham, R., M.B.O.U., 12 Weymouth Court, W.1. (Orn., Ent.)
- 1939 Devenish, L. R., 23 Grosvenor Road, East Grinstead, Sussex. (Ecol., Lep.)
- 1937 Donnelly, R. P., B.A., B.Sc. (Oxon.), 7 Rothesay Avenue, Richmond, Surrey. (Orn.)
- 1936 Douglas, Miss M., 30 The Alders, N.21. (Orn., R., Bot.)
- 1928 Douglas-Smith, Miss K., 19 Thurlow Road, N.W.3. (Arch., Orn., Bot., Ecol.)
- 1927 Druce, F., M.A., F.L.S., 60 Burton Court, S.W.3. (Bot.)
- 1939 Dudley, A. J., 17 Fairwood Court, E.11.
- 1934 Eales-White, Major J. C., T.D., F.R.E.S., F.Z.S., 88 Mount Ararat Road, Richmond, Surrey. (Orn., Ent., Arch.)
- 1938 Eardley-Wilmot, Mrs M., 24 Thurloe Square, S.W.7. (Bot., Orn.)
- 1936 Elcome, G. D. (on service), 28 Dulwich Wood Avenue, S.E.19. (Orn.)
- 1936 Elcome, J. W., 28 Dulwich Wood Avenue, S.E.19. (Orn.)
- 1939 Elles, J. H. de G., 79 Onslow Square, S.W.7. (Bot.)
- 1936 Ellington, Miss M. L., 3 The Terrace, Richmond Hill, Surrey. (Orn.)
- 1936 Ellis, W. G., 3 St Philips Road, Surbiton, Surrey. (Orn.)
- 1939 Elphinstone, K. V., Artillery Mansions, S.W.1. (Orn.)
- 1928 Emberson, L. M., African and Eastern (Near East) Ltd., P.O. Box No. 17, Baghdad, Iraq. (Orn., Ecol.)
- 1927 English, Miss F., 8 Dorville Crescent, W.6. (Orn., Bot., Arch., R.)
- 1939 Eve, I. S., 49 Downs Road, E.5. (Orn.)
- 1907 Eynon, L., B.Sc., F.I.C., 8 Hall Lane, Upminster, Essex. (Chem.)
- 1939 Fairbairn, Miss C. E., 31 Courtfield Gardens, S.W.5. (Orn.)
- 1940 Fairbairn, D. C., M.C., M.B., B.Sc. (Lond.), L.R.C.P., M.R.C.S., 48 Addison Avenue, W.11. (Bot.)
- 1939 Faulkner, Miss A. M. G., 127 Lower Richmond Road, S.W.14. (Arch., Orn., R.)
- 1927 Fisher, Mrs G. L., 41 Milton Court, Ickenham, Middlesex. (Arch.)
- 1937 Fisher, J. M. McC., Zoological Society of London, N.W.8. (Ecol., Orn.)
- 1939 Fitter, Mrs M. S., 81 Ridgmount Gardens, W.C.1. (Ecol., Orn.)
- 1934 Fitter, R. S. R., F.Z.S., 81 Ridgmount Gardens, W.C.1. (Orn., Ecol., Ent.)
- 1939 Forty, E., 22 Medina Avenue, Esher, Surrey. (Orn.)

- 1924 Foster, J. B., B.A., 12 Conway Road, S.W.20. (Orn.)
- 1928 Fox, G. J. B., 45 Stanwick Mansions, W.14. (Arch.)
- 1932 Franklin, A. W. L., 47 Bedford Gardens, W.8. (Orn.)
- 1938 Franks, Miss H., at C. H. A. Whitmore Vale House, Hindhead, Surrey. (Arch., Bot., Ecol., Orn., R.)
- 1940 Fraser, Miss C. M., B.Com., The Penn Club, 22 Bedford Place, W.C.1. (Orn.)
- 1931 Frederick, Miss L. M., M.Sc., F.Z.S., Whitelands College, West Hill, S.W.15. (Orn., P. L., Ecol., R.)
- 1937 Freeman, P., B.Sc., A.R.C.S., F.R.E.S., 8 Sebastian Avenue, Shenfield, Essex. (Ecol., Ent.)
- 1935 French, W. A., Brook Barns, Chigwell, Essex. (Orn., Bot.)
- 1939 Garrett, V. R., 15 The Pryors, East Heath Road, N.W.3. (Orn.)
- 1932 Garrido, A. S., 102 Clonmell Road, N.17. (Bot., Geol., Ecol.)
- 1933 Gaster, H., 26a Lunham Road, S.E.19. (Bot., Orn.)
- 1910 Gaze, W. E., 10 The Avenue, Highams Park, E.4. (Lep., Bot., Chem.)
- 1939 Gibson, Miss A., M.D., The Central Laboratory, Star and Garter Home, Richmond, Surrey. (Orn.)
- 1939 Gibson, Mrs G. M., 26 Gilston Road, S.W.10. (Bot., Orn.)
- 1931 Gillett, J. D., F.R.E.S., P.O. Box 40, Jinja, Uganda. (Ent., Rept.)
- 1933 Gillham, E. H., 39 Coulsdon Road, Coulsdon, Surrey. (Orn.)
- 1937 Gillingham, D. W., 28 Roding Road, Loughton, Essex. (Orn.)
- 1910 Glegg, W. E., F.Z.S., M.B.O.U., 2 Burlington House, King's Road, Richmond, Surrey. (Orn.)
- 1934 Godwin, C., 20 Canonbury Park North, N.1. (Orn.)
- 1934 Godwin, Mrs M. L., 20 Canonbury Park North, N.1. (Orn.)
- 1929 Goodfellow, Miss L., 11 The Grange, Maitland Park Road, N.W.3. (Orn.)
- 1939 Goom, Miss E., 53 Queen's Road, Tunbridge Wells, Kent. (Orn.)
- 1937 Green, Mrs E. M., Gordon House, Gloucester Road, New Barnet, Herts. (Bot., Ecol.)
- 1927 Green, R., F.Z.S., Ruskin Studio, 7 New Court, Lincoln's Inn, W.C.2, and 84 Elgin Road, Seven Kings, Essex. (Orn.)
- 1939 Greenfield, H. F., Beech Bank, Stuart Road, Warlingham, Surrey. (Orn.)
- 1899 *Greenwood, Prof. M., D.Sc., F.R.S., F.R.C.P., Hillcrest, Church Hill, Loughton, Essex. (Arch., Biol.)
- 1928 Griffin, Miss M., 22 Addison Way, N.W.11. (Orn.)
- 1920 Grinling, C. H., B.A., 71 Rectory Place, S.E.18. (Bot., Ecol.)
- 1932 Hadfield, J., Denecroft, Heath Way, Effingham, Surrey. (Orn., R.)
- 1926 Hadfield, Mrs M. H., Denecroft, Heath Way, Effingham, Surrey. (Orn., Bot., R.)
- 1927 Hale, R. W., 6 Grendon Gardens, Barn Hill, Wembley Park, Middlesex. (Orn.)

- 1936 Hall, J. B., Nakuru, Bridle Lane, Loudwater, Herts. (Orn.)
- 1939 Hambly, E. H. T., M.B., B.S., F.R.C.S., 41 Albany Street, N.W.1. (Ent., Orn.)
- 1903 Hanbury, F. Capel, Westfield, Hoddesdon, Herts. (Lep.)
- 1938 Hansford, Mrs D. I., 10 Russell Grove, N.W.7. (Bot., Ecol.)
- 1897 *Hanson, P. J., Burcroft, Village Road, Bush Hill Park, Middlesex. (Orn., Arch., R., Ecol.)
- 1921 Hardiman, J. P., C.B.E., B.A., Hyron's Cottage, Woodside Road, Amersham, Bucks. (Orn., R.)
- 1933 Harrison, Miss E. E., 44 Alexandra Road, N.W.8. (Orn., R.)
- 1937 Harrison, H. G., 38 Richmond Road, N.1. (Orn., Arch.)
- 1937 Harvie, Miss D. E., The Croft, Maybury Hill, Woking, Surrey. (Bot., Orn., Freshwater Biol., Ecol.)
- 1939 Haviland, Mrs B., 121 Ashley Gardens, S.W.1. (Bot.)
- 1939 Haviland, Miss D. M., 121 Ashley Gardens, S.W.1. (Orn.)
- 1938 Haviland, Miss G. M. B., 121 Ashley Gardens, S.W.1. (Orn.)
- 1938 Haviland, Major L. P., 45a Chester Square, S.W.1. (Orn.)
- 1930 Haworth, Miss F. M., B.Sc., F.Z.S., 69 Gloucester Court, Kew Road, Kew, Surrey. (Zoo., Bot.)
- 1927 Hayward, J. F., B.Sc., 29 Mount Echo Drive, E.4. (Geol., Zoo.)
- 1935 Hearn, Miss D. B., 56 Meadvale Road, W.5. (Orn., Bot., Arch., R.)
- 1902 Heath, G. H., M.A., 3 Bolney Court, Portsmouth Road, Surbiton, Surrey. (Lep.)
- 1935 Henderson, Miss F. E., 70 King's Road, S.W.19. (Orn.)
- 1937 Hett, G. Seccombe, F.R.C.S., F.R.G.S., F.Z.S., 86 Brook Street, W.1. (Orn., Mam., Ich., Ecol.)
- 1938 Heyworth, Miss G., 54 Boundary Road, N.W.8. (Orn.)
- 1938 Highway, Mrs H., 1 North Dene, Beckenham Junction, Kent. (Bot., Orn.)
- 1936 Hilliard, R., 5 Oakleigh Gardens, Edgware, Middlesex. (Ent., Ecol.)
- 1938 Hindson, M. T., 11 Holland Park, W.11.
- 1937 Höhn, E. O. (on service), Belmont, Westfields, Leek, Staffs. (Orn., Ecol.)
- 1932 Homes, R. C., Park Cottage, Wisborough Green, near Billingshurst, Sussex. (Orn., Ecol., R.)
- 1930 Hopkins, G., The Byron Studies, Ltd., 8 Farringdon Avenue, E.C.4. (Orn., Ecol.)
- 1919 Horn, P. W., Stepney Borough Museum, 77 Whitechapel High Street, E.1. (Orn., Aqua.)
- 1905 Hornblower, A. B., 91 Queen's Road, Buckhurst Hill, Essex. (Api., Arch., Orn., R., Ecol.)
- 1931 *Hose, Miss M. M., 22 The Avenue, Bickley, Kent. (Orn., Bot., Ent., Pl. G., Ecol., R.)
- 1938 Hurcomb, Sir Cyril, K.B.E., C.B., 12 Campden Hill Court, W.8. (Orn.)

- 1939 Hussey, N. W., 83 Gallows Hill, King's Langley, Herts. (Orn., Hym.)
- 1937 Hussey, S. V., 40 Flanchford Road, W.12. (Bot., Orn., R.)
- 1930 Hutton, Miss R. E., 34 Thorneyhedge Road, W.4. (Bot., Zoo.)
- 1927 Jeffery, H. J., A.R.C.S., F.L.S., 14 Coppetts Road, N.10. (Bot.)
- 1929 Johns, Miss F. E., 30 Mount Stewart Avenue, Kenton, Middlesex. (Orn., R., Bot.)
- 1933 Johns, Miss L. J., 87 Morley Hill, Enfield, Middlesex. (Arch., Bot., Orn., R., Ecol.)
- 1931 Johnston, F. J., 19 Connaught Avenue, E.4. (Orn., Ecol.)
- 1937 Jones, Mrs E. G., Little Collier's Farm, Whelpley Hill, near Chesham, Bucks. (Orn.)
- 1939 Jones, H. O., 49 Eaton Road, Sutton, Surrey. (Orn.)
- 1899 *Kaye, W. J., F.R.E.S., Chantrey Lodge, Longdown, Guildford, Surrey. (Lep.)
- 1937 Keen, Mrs E. M., 15 Doughty Street, W.C.1. (Arch.)
- 1938 Keith, Miss C., 17 Abercorn Place, N.W.8. (Arch., Bot., Orn., R.)
- 1934 Kerr, Mrs H. M., Rait-, 22 Elm Tree Road, N.W.8. (Orn., Arch.)
- 1936 Keywood, K. P., Croft Cottage, Hare Lane, Claygate, Surrey. (Orn., Ent.)
- 1930 King, Miss C. A., M.D., 8 Lancaster Drive, N.W.3. (Orn., Arch., R.)
- 1929 King, E. L., 11 Downs View, Isleworth, Middlesex. (Orn., Bot., R.)
- 1932 King, Mrs E. L., 11 Downs View, Isleworth, Middlesex. (Orn., Bot., R.)
- 1928 Lack, H. L., M.D., F.R.C.S., 71 Marlborough Place, N.W.8. (Orn.)
- 1936 Lamont, Mrs E. H., 49a Netherhall Gardens, N.W.3. (Orn.)
- 1930 Ledlie, R. C. B., M.B., B.Sc., F.R.C.S., 64 Harley Street, W.1. (Bot., Orn.)
- 1928 Lee, Miss M., 22 Addison Way, N.W.11. (Orn.)
- 1928 Leech, T., 52 Park Avenue, Bush Hill Park, Middlesex. (Bot., Orn.)
- 1922 Lemon, Mrs M. L., M.B.E., J.P., F.Z.S., M.B.O.U., Hillcrest, Redhill, Surrey. (Orn.)
- 1937 Lewer, F. A., 10 Oakhill Road, S.W.15. (Orn.)
- 1919 Leyton Public Libraries, per the Librarian (E. Sydney, F.L.A.), Central Library, E.10.
- 1927 Lister, Miss G., F.L.S., 871 High Road, E.11. (Orn., Bot.)
- 1926 *Littlejohn, H. A., 2 Brooklands Gardens, Roding Lane, Ilford, Essex. (Orn., Bot., R.)
- 1926 *Longfield, Miss C. E., F.R.G.S., F.R.E.S., F.Z.S., M.B.O.U., 20 Pont Street, S.W.1. (Orn., Ent., Bot., Ecol., R.)
- 1930 *Low, G. Carmichael, M.A., M.D., F.R.C.P., F.Z.S., M.B.O.U., 7 Kent House, W.8. (Orn., Zoo.)
- 1938 Lowe, Miss C. B. M., 14 Ross Court, S.W.15. (Arch., Bot., Orn., R.)

- 1926 Lutwyche, Mrs A. N., 120 Mildred Avenue, Watford, Herts.
(Orn., R.)
- 1938 MacAlister, D. A., 10 St Albans Grove, W.8. (Orn.)
- 1928 MacAlister, Mrs E., 10 St Albans Grove, W.8. (Orn., Bot.)
- 1937 McClintock, D., B.A., 20 Roland Way, S.W.7. (Bot., Orn.)
- 1935 McCulloch, G. K., 65 Chester Road, Northwood, Middlesex. (Orn.)
- 1933 MacDonald, Right Honourable Malcolm J., P.C., M.P., Upper
Frognaal Lodge, N.W.3. (Orn.)
- 1935 McDowell, Miss C. M., Civil Service Commission, Burlington Gar-
dens, W.1. (Bot., Orn.)
- 1939 McEwen, Miss E., 135 Arthur Court, Queensway, W.2. (Orn.)
- 1932 McInnes, Miss J., 5 Longton Avenue, S.E.26. (Orn., Bot., Ecol.)
- 1911 MacIntosh, Miss I. S., 3 Mayfield Road, E.4. (Arch., Bot.)
- 1911 MacIntosh, Miss J. D., 3 Mayfield Road, E.4. (Arch., Bot.)
- 1929 Mackay, Helen M. M., M.D., F.R.C.P., 11 The Grange, Maitland
Park Road, N.W.3. (Orn.)
- 1932 Mackworth-Praed, C. W., F.R.G.S., F.Z.S., F.R.E.S., M.B.O.U.,
Castletop, Burley, near Ringwood, Hants. (Orn., Ent.)
- 1923 *Macpherson, A. Holte, B.C.L., M.A., F.Z.S., 21 Campden Hill
Square, W.8. (Orn.)
- 1929 Maltby, Miss J., 157 Copers Cope Road, Beckenham, Kent. (Orn.,
Bot., P. L.)
- 1936 Mann, C. A., 26 Mount Avenue, Westcliff-on-Sea, Essex. (Ent.,
Arch.)
- 1934 Mann, F. R., M.C., Noreena, Ham Common, Surrey. (Orn.)
- 1934 Manser, G. E. (on service), 51 Barnmead Road, Beckenham, Kent.
(Orn., Bot., Ecol.)
- 1936 Manson-Bahr, P. H., C.M.G., D.S.O., M.A., M.D., F.R.C.P.,
M.B.O.U., F.Z.S., 149 Harley Street, W.1. (Orn.)
- 1934 *Marchant, Miss R., 24 Longmeads, Rusthall, Tunbridge Wells,
Kent. (Bot., Arch.)
- 1939 Marsh, Miss B. M., 5 High Street, E.11. (Bot., Ecol., Ent., Orn.)
- 1932 Mason, C. T., 144 Wembley Hill Road, Wembley, Middlesex.
(Ent., Arch.)
- 1938 Mason, J. H., 67 Thurlow Park Road, S.E.21. (Ent., Orn., R.)
- 1938 Maund, Miss L., 79 Gordon Court, Du Cane Road, W.12. (Orn.)
- 1940 Mayo, R. W., Inaspinney, Oaklands, Welwyn, Herts. (Orn.)
- 1940 Megaw, T. McE., M.Sc., A.M.I.C.E., 4 Verulam Buildings, Gray's
Inn, W.C.1. (Geol., Orn.)
- 1935 Melliush, W. D., 56 Sunnyfield, N.W.7. (Orn.)
- 1938 Michael, R. P., Lyncroft, St Albans Road, Clacton, Essex. (Orn.,
Ecol.)
- 1931 Millburn, Miss F. C., Calderfield, St George's Avenue, Northamp-
ton. (Orn.)
- 1939 Milnthorpe, Miss W. M., B.Sc.(Lond.), 22 Geneva Road, Thorn-
ton Heath, Surrey. (Ecol., Zoo.)
- 1926 Mitchell, Miss E. A., 196a Northolt Road, S. Harrow, Middlesex.
(Bot., Orn.)

- 1938 Monk, J. F., 5 Gayton Crescent, N.W.3. (Orn.)
- 1939 Moore, Miss E., 25 West Cromwell Road, S.W.5. (Arch., R.)
- 1937 Moreton, Miss M., 7 Abbey View Road, St Albans, Herts. (Orn.)
- 1934 Morgan, D. A. T. (on service), 3 Upton Field, Southwell, Notts. (Orn., R., Ecol.)
- 1939 Morgan, Miss L., 10 Old Square, Lincoln's Inn, W.C.2.
- 1938 Moss, Miss I. P., Albert House, Great Wakering, Essex. (Arch.)
- 1937 Mountfort, G. R., M.B.O.U., Lincombe, West Way, Broadstone, Dorset. (Orn.)
- 1934 Munro, Miss M., Furzedown Training College, Welham Road, S.W.17. (Orn., Ecol.)
- 1928 Murphy, Miss H., L.L.A., Layne's, High Street, Newmarket, Suffolk. (Bot., Orn., Ent., Arch.)
- 1939 Muspratt, D. E., 13 Scarborough Road, E.11.
- 1937 Musselwhite, D. W., 59 Mayford Road, S.W.12. (Orn.)
- 1938 Myers, A. F., 2nd Lieut., 7th Batt. The Border Regiment, The Drill Hall, Workington, Cumberland. (Orn.)
- 1893 *Nicholson, Miss B., 49 Danecourt Road, Parkstone, Dorset. (Bot.)
- 1934 Nicholson, E. M., M.B.O.U., 13 Upper Cheyne Row, S.W.3. (Orn., Ecol.)
- 1934 Nicholson, E. T., 21 Holly Drive, E.4. (Orn.)
- 1932 Nicholson, G., Homeland, Basildon Road, Laindon, Essex. (Orn.)
- 1928 Noel, Miss E. F., 37 Burnham Court, W.2. (Bot., Orn., R., Ent., Pl. G.)
- 1934 Norris, C. A., M.B.O.U., Grassholme, Stratford-on-Avon, Warwickshire. (Orn., Ecol.)
- 1940 Norsworthy, H. H., 15 Selwyn House, Manor Fields, S.W.15. (Orn.)
- 1937 O'Farrell, A. F. L., Oaklands, Old Post Office Road, Crawley, Sussex. (Ecol., Ent.)
- 1926 *Oldham, C., F.L.S., F.Z.S., M.B.O.U., Oxfield, Shootersway, Berkhamsted, Herts. (Bot., Orn., Conch., Ecol.)
- 1937 Oldroyd, H., M.A., F.R.E.S., British Museum (Natural History), S.W.7. (Ecol., Ent.)
- 1937 Owen, C. E., 30 Hamilton Road, Harrow, Middlesex. (Orn.)
- 1938 Paddington Public Libraries (H. J. W. Wilson, A.L.A., Librarian), Porchester Road, W.2.
- 1929 Page, Miss M. M., 26 Woodfield Close, Ashted, Surrey. (Orn.)
- 1938 Park, W. D., 34 White Horse Drive, Epsom, Surrey. (Orn., Ecol.)
- 1938 Parker, Miss J. E., 202 Avery Hill Road, S.E.9. (Bot., Ecol., Ent., Orn.)
- 1925 *Parmenter, L., F.R.E.S., 94 Fairlands Avenue, Thornton Heath, Surrey. (Ecol., Bot., Ent. (esp. Dipt.), Orn., Pl. G.)
- 1938 Parrinder, Mrs E. D., 27 Gwalior House, Chase Road, N.14. (Ecol., Orn.)
- 1938 Parrinder, E. R., 27 Gwalior House, Chase Road, N.14. (Ecol., Orn.)

- 1921 Parsons, S. T. T., 89 Holland Park, W.11. (Orn.)
- 1937 Patterson, H. G., 15 Queen's Gate Gardens, S.W.7. (Orn.)
- 1933 Paulson, C. W. G., M.B.O.U., Woodside Cottage, Wheeler's Lane, Smallfield, Surrey. (Orn.)
- 1930 Payne, E. D. B., 32 Friern Watch Avenue, N.12. (Orn.)
- 1923 Payne, E. M., Tilgate, Long Lane, Hillingdon, Middlesex. (Bot., Orn.)
- 1923 Payne, L. G., F.Z.S., 22 Marksbury Avenue, Richmond, Surrey. (Bot., Ecol.)
- 1935 Pearce, B. S. K., 74 Ashgrove Road, Goodmayes, Essex. (Orn., Bot., Ent.)
- 1937 Pearce, E. W., 60 Percy Road, Hampton, Middlesex. (Orn.)
- 1934 Pearson, Miss D. M., St Gabriel's College, Cormont Road, S.E.5. (Orn., P. L., Bot., Pl. G.)
- 1932 Pedler, E. G., 78 Richmond Park Road, S.W.14. (Orn., R.)
- 1937 Peterken, J. H. G., 73 Forest Drive East, E.11. (Orn., Bot., Ecol.)
- 1937 Philipson, W. R., Melbrake, Park Avenue, Ruislip, Middlesex. (Orn.)
- 1932 Phillips, Mrs F. M., 9 Sylvan Hill, S.E.19. (Orn.)
- 1932 Phillips, H. H., M.R.C.S., L.R.C.P., 9 Sylvan Hill, S.E.19. (Orn.)
- 1937 Piercy, K., 10b St Edmund's Terrace, N.W.8.
- 1931 Pinniger, E. B., 19 Endlebury Road, E.4. (Ent., Orn.)
- 1927 Piper, Miss G. E. M., 12 Elms Road, S.W.4. (Orn.)
- 1940 Plumptre, Miss H. M., 34 Taylor Avenue, Kew, Surrey. (Bot., Orn.)
- 1935 Pollard, Mrs H. B., "Greenacre," Stanhope Road, East Croydon, Surrey. (Orn., Ecol.)
- 1925 Pooch, S. G., 17 Green Moor Link, N.21. (Orn., Ecol.)
- 1928 Poole, A. C., 42 The Mall, W.5. (Orn., Bot.)
- 1940 Poore, A. C. G., 17 West Avenue, Wallington, Surrey. (Orn.)
- 1933 Popple, Miss W. N., Castle Rise, Castle Hill Avenue, Berkhamsted, Herts. (Orn., R., P. L., Ecol.)
- 1892 Prout, L. B., F.R.E.S., 26 St Ursula Grove, Pinner, Middlesex. (Lep., Biol.)
- 1938 Raincock, C. W., F.Z.S., 9 Bennett Park, S.E.3. (Mam., Ecol.)
- 1939 Rammell, Mrs E. M., Waterways, St Albans, Herts. (Orn.)
- 1926 Rankin, The Hon. Lady, Royal Court Hotel, S.W.1. (Orn.)
- 1939 Ratcliff, A. G., 12 Barnmead Road, Beckenham, Kent. (Orn.)
- 1934 Ratcliff, P. W., 12 Barnmead Road, Beckenham, Kent. (Orn., Bot., Ecol.)
- 1938 Rawlence, D. A., Hill Top Cottage, Warboys Road, Kingston Hill, Surrey. (Orn.)
- 1934 *Ray, Miss T., 24 Longmeads, Rust Hall, Tunbridge Wells. (Bot., Arch.)
- 1935 Redpath, K., Orchard Cottage, Jordans, Beaconsfield, Bucks. (Orn.)

- 1929 Reed, Miss J. B., 1 Lymington Court, S.W.19. (Orn.)
- 1930 Reeve, Miss E. A., The Penn Club, 22 Bedford Place, W.C.1.
(Bot., Orn., Ent., R., Ecol.)
- 1929 Rew, Miss M., 23 Chester Terrace, N.W.1. (Orn.)
- 1925 Richardson, A., 2 Manor Road, Lea Valley, Wheathampstead,
Herts. (Orn., Ent.)
- 1940 Richardson, R. A., 164A Shaftesbury Avenue, W.C.2. (Orn.)
- 1892 Robbins, R. W., Hillrise, Clennon Park, Paignton, S. Devon.
(Bot., Lep., Orn., Arch., Pl. G., Ecol.)
- 1934 Roberts, J. E., B.Sc., 24 Warren Drive, Surbiton, Surrey.
(Orn., Ecol.)
- 1933 Robinson, G. F. B., Shenley, Manor Green Road, Epsom, Surrey.
(Orn., R.)
- 1933 Robinson, Mrs M. L., Shenley, Manor Green Road, Epsom, Surrey.
(Bot., R.)
- 1938 Rommel, Miss D., The Orchard House, Bickley, Kent. (Arch.,
Orn.)
- 1937 Rose, C. C., 18 Draycott Avenue, Kenton, Middlesex. (Orn.)
- 1910 *Ross, J., 23 College Gardens, E.4. (Pl. G.)
- 1935 Rowan, J. D., 65 Haydn Avenue, Purley, Surrey. (Orn.)
- 1931 Rowberry, E. C., Sabon Gida, Golf Road, Radcliffe-on-Trent,
Notts. (Orn., Ecol.)
- 1932 Ryan, A. P., 19 Barnsall Street, S.W.3. (Orn.)
- 1929 Sampson, E. S., 60 Alexandra Road, Epsom, Surrey. (Orn.)
- 1937 Scott, G. B., 6 Alan Road, S.W.19. (Geol., Orn.)
- 1930 Scudamore, Miss M., 23 Marchmont Road, Richmond, Surrey.
- 1937 Seth-Smith, D., F.Z.S., M.B.O.U., Curator's House, Zoological
Gardens, N.W.8. (Orn.)
- 1937 Sheppard, R., 10 Sylvan Avenue, N.W.7. (Orn., Zoo.)
- 1935 Shill, W. A., Barberries, Greenhurst Lane, Oxted, Surrey. (Bot.)
- 1929 Short, G. R. A., 36 Parkside Drive, Edgware, Middlesex. (Bot.,
Micr., Pharmacognosy, Ecol.)
- 1938 Sim, A. F. C., Amerden Ponds, Taplow, Bucks. (Orn.)
- 1892 Simes, J. A., O.B.E., F.R.E.S., 75 Queen's Road, Loughton,
Essex. (Ent.)
- 1939 Simon, M. H. H., Sharston House, Knutsford, Cheshire. (Ecol.,
Orn.)
- 1933 Skrimshire, E. H. N., F.R.A.I., F.Z.S., 5 The Old Well House,
The Grove, N.6. (Orn., Arch., R.)
- 1940 Sladen, W. J. L., at Hilltop Cottage, Warboys Road, Kingston
Hill, Surrey. (Bot., Ecol., Ent., Orn.)
- 1940 Smeed, J. A., 133 Cassiobury Park Avenue, Watford, Herts.
(Orn.)
- 1935 Smith, Miss A. J., 26 Newman Street, W.1. (Orn.)
- 1892 Smith, C. B., 103 Wood Vale, N.10. (Lep.)
- 1929 Smith, Mrs H. K., 103 Wood Vale, N.10.
- 1933 Smith, Miss L., 17 Highcliffe Gardens, Ilford, Essex. (Arch.)
- 1937 Smith, M. A., M.R.C.S., Lane End, Putney Heath Lane, S.W.15.
(Rep. and Amph.)

- 1934 Smith, R. M., 124 King's Avenue, Woodford Green, Essex. (Orn.)
 1927 Solly, Miss B. N., 167 Old Brompton Road, S.W.5. (Orn.)
 1927 Southern, H. N., M.A., F.Z.S., 67 Holden Road, N.12. (Orn., Ecol.)
 1936 Spencer, M. D., Long Orchard, Cobham, Surrey. (Orn.)
 1935 Spinney, G. H., B.A., East Hill Cottage, Copthorne, near Crawley, Sussex. (Bot., Arch., Ecol., R.)
 1938 Spinney, Mrs G. H., A.R.C.A., East Hill Cottage, Copthorne, near Crawley, Sussex. (Bot., Ecol., Orn.)
 1922 Spooner, H., 21 Musgrave Crescent, S.W.6. (Bot., Orn., Arch., R., Ecol.)
 1936 Springall, R. S., 30 Connaught Avenue, E.4. (Orn.)
 1934 Steel, W. O., 16 Upsdell Avenue, N.13. (Ent., Pl. G., Ecol.)
 1920 *Stowell, H. S., L.R.I.B.A., Pirbright, Torland Road, Hartley, Plymouth. (Arch.)
 1937 Styles, C., B.Sc., 21 Links Road, Ashted, Surrey.
 1933 Sulman, J. E., Crofters, Pine Grove, Totteridge, Herts. (Orn.)
 1927 Swain, A. M., 253 Crescent Drive, Petts Wood, Kent. (Orn.)
 1930 Swayne, F. G., M.A. (Cantab.), M.B., M.B.O.U., Hoskin's Arms Hotel, Oxted, Surrey. (Orn.)
 1935 Tams, W. H. T., F.R.E.S., British Museum (Natural History), S.W.7. (Ent.)
 1938 Taylor, Miss M. L., 6 Kent Gardens, W.13. (Bot.)
 1938 Taylor, Miss M. S., Flat 52 King's Court, W.6. (Orn.)
 1920 Thomas, Mrs G. E., 9 Talbot Road, Isleworth, Middlesex. (Orn., R.)
 1939 Thompson, P., 7 Paynesfield Avenue, S.W.14. (Bot., Orn.)
 1939 Thornton, J. O., 6 Arterberry Road, S.W.20. (Orn.)
 1892 Tremayne, L. J., F.Z.S., Grand Buildings, Trafalgar Square, W.C.2. (Bot., Lep., Arch., Pl. G., Orn., R.)
 1908 Tremayne, Mrs, Grand Buildings, Trafalgar Square, W.C.2. (Orn., Arch., Bot., R.)
 1940 Tronton, Miss E. M., 31 Albert Bridge Road, S.W.11. (Orn.)
 1940 Tucker, A. V., 29 Hogarth Road, S.W.5. (Orn.)
 1931 Underwood, R. A., Greenways, Shoreham Road, Otford, Kent. (Orn.)
 1937 Upton, Mrs P. V., Eweland Hall, Margaretting, Essex. (Orn.)
 1935 van Oostveen, Miss M., 11 Gloucester Walk, W.8. (Orn., Ent., Ecol.)
 1927 Veitch, Miss A. I., 44 Budoch Drive, Goodmayes, Essex. (Arch.)
 1929 Venour, Miss D., Offley Place, Great Offley, Hitchin, Herts. (Orn., Ecol.)
 1933 Vincent, W. G., 154 Winchester Road, Hale End, E.4. (Orn.)
 1938 Wadley, N. J. P., 132 Rivermead Court, S.W.6. (Orn.)
 1927 Waller, G., 158 Beckenham Road, Beckenham, Kent. (Orn., Ent., Ecol.)
 1938 Warburg, G. O., 1 Woodside, Erskine Hill, N.W.11. (Orn.)
 1925 Ward, B. T., 24 Long Deacon Road, E.4. (Arch., Bot., Ent., Orn., Pl. G., R., Ecol.)

- 1933 Ward, Miss M., M.B., Ch.B., Threeways, Jordans, Beaconsfield, Bucks. (Arch., Orn.)
- 1936 Watt, E. C., 13 Park Road, N.W.1. (Orn.)
- 1925 *Watt, Mrs W. Boyd, M.B.O.U., 35 Knyveton Road, Bournemouth, Hants. (Orn., Arch., Ecol.)
- 1938 Watts, G., Bracklyn, Wood End Road, Harpenden, Herts. (Orn.)
- 1938 *Wattson, Miss A. E., 2 Beverley Court, Kenton Lane, Harrow, Middlesex. (Ent., Orn.)
- 1939 Wattson, Mrs R. F., 2 Beverley Court, Kenton Lane, Harrow, Middlesex.
- 1939 Wattson, R. F., 2 Beverley Court, Kenton Lane, Harrow, Middlesex. (Ent.)
- 1928 Weeks, C., 7 Ashmount Road, N.19. (Orn., Ecol., R.)
- 1939 Welford, Miss A. M., 13 Clifton Avenue, N.3. (Orn.)
- 1929 Wheeler, E. P., F.R.I.B.A., 10 St Martin's Avenue, Epsom, Surrey. (Orn., Arch.)
- 1935 Whitaker, F. O., 51 Grosvenor Avenue, Carshalton, Surrey. (Bot., Pl. G., R., Ecol.)
- 1930 Whitbread, R., 6 Meadow Way, Weald Village, Harrow, Middlesex. (Arch.)
- 1932 Whitbread, Miss W. H. E., 6 Meadow Way, Weald Village, Harrow, Middlesex.
- 1937 White, C. A., 18 Townsend Road, Southall, Middlesex. (Orn.)
- 1933 White, E. I., Ph.D., F.G.S., Dept. of Geology, British Museum (Natural History), S.W.7. (Palaeontology, Orn.)
- 1938 Whitehead, Miss D., 173 Sunny Gardens Road, N.W.4. (Bot., Orn., R.)
- 1935 Whitehouse, F. W., Wayside East, Oak Road, Harold Wood, Essex. (Bot.)
- 1940 Whittington-Egan, R., 30 Emperor's Gate, S.W.7. (Orn., Palaeont.)
- 1937 Wiggins-Davies, W. W., St Thomas's House, Lambeth Palace Road, S.E.1. (Orn.)
- 1934 Wightman, J. S., Framlingham, Barnley Drive, Southborough, Kent. (Orn.)
- 1938 Wigram, A. F., R.N. Air Station, Eastleigh, Hants. (Orn.)
- 1938 Wigzell, J. A., 17 Wool Road, S.W.20. (Ecol., Orn.)
- 1937 Williams, O. C. B., 103 Brondesbury Road, N.W.6. (Orn., Ecol.)
- 1938 Wilton, A. R., 262 Kingston Road, S.W.20. (Ecol., Orn., R.)
- 1937 Wimberley, R. J. G., Ingleneuk, Churchdown, Glos. (Orn., Ecol., R.)
- 1938 Winsloe, Mrs C. M., 63 North Gate, N.W.8. (Orn.)
- 1937 Wise, Miss U. V., 48 Warrington Road, Harrow, Middlesex. (Orn.)
- 1929 Witherby, H. F., M.B.E., H.F.A.O.U., F.Z.S., M.B.O.U., Gracious Pond Farm, Chobham, Nr. Woking, Surrey. (Orn.)
- 1937 Witney, Miss M., Tarbert, Stratford Road, Watford, Herts. (Orn., Bot.)

- 1935 Woods, Miss C. E. L., Little Ballards, Farley Road, South Croydon, Surrey. (Orn., Ent., Zoo.)
- 1937 Worthington, Miss L. F., 104 Goldhurst Terrace, N.W.6. (Arch.)
- 1922 Wright, W. A., 31 Beresford Road, E.4. (Orn.)
- 1938 Wylie-Moore, N., 3 Helena Court, Eaton Rise, W.5. (Orn.)
- 1937 Yarrow, I. H. H., M.A., Ph.D., D.I.C., F.R.E.S., Chatsworth House, Riverdale Road, Twickenham, Mdx. (Ecol., Ent.)

Affiliated Societies.

- 1938 Bishop's Stortford College Natl. Histry. Society (L. P. Madge), School House, The College, Bishop's Stortford, Herts.
- 1936 Tiffin Boys' School Scientific Society (Natural Science Section). (D. T. Humphris), Tiffin Boys' School, Kingston-on-Thames, Surrey. (Ecol.)
- 1936 Westminster School N.H. Society (L. H. Burd), Westminster School, Dean's Yard, S.W.1. (Orn., Ent., Ecol.)

Branch Associates:

- 1937 Bayes, C. S., 50 Pembroke Road, E.17. (Orn.)
- 1925 Boardman, S., 109 Monkham's Avenue, Woodford Green, Essex. (Orn., Ent.)
- 1937 Boss, Miss E. F. M., 15 Orford Road, E.17. (Bot., Orn.)
- 1930 Brightman, Miss A., St Osyth, Hempstead Road, E.17.
- 1937 Broome, Miss E. B., 15 Orford Road, E.17. (Bot., Orn.)
- 1938 Chingford Branch County Library (per the Librarian, E. Leyland), Hall Lane, E.4.
- 1939 Churchill, Miss E. M., N.F.U., Bays, The Uplands, Loughton, Essex.
- 1937 Earl, W. J. H., Bancroft's School, Woodford Green, Essex. (Orn.)
- 1920 Hart, Miss H., 7 Park Hill Road, E.4.
- 1933 Hayward, P. D., 2 King's Green, Loughton, Essex. (Orn.)
- 1937 Hiles, Miss I. E., 1 Forest Side, E.4.
- 1938 Horder, Miss J., 14 Douglas Road, E.4.
- 1933 Jeffery, Miss P., 64 Larkwood Road, E.4.
- 1939 Lewty, Miss J. P., Oaklea School, Ness Strange, near Shrewsbury.
- 1911 Mathieson, Miss M. L., 7 Crescent Road, E.4. (Meteorology.)
- 1930 Penwarden, Miss C., 39 The Avenue, E.4.
- 1935 Pettit, H. A., 197 Billet Road, E.17. (Orn.)
- 1927 Pettit, Mrs S., 2 Victoria Road, E.4.
- 1927 Pettit, S., 2 Victoria Road, E.4.
- 1932 Pinniger, Mrs, 19 Endlebury Road, E.4.
- 1925 Saul, H. J. B., 12 Sandringham Court, Ipswich Road, Norwich.
- 1937 Smith, R. P., 22 Pelton Avenue, Belmont, Surrey. (Conch.)
- 1903 Stevenson, H. E., F.C.S., 24 Wilton Grove, S.W.19. (Chem.)
- 1935 Stiff, D. F. H., 214 West Barnes Lane, Motspur Park, Surrey. (Geol.)
- 1927 Stopps, W. E., 50 Gordon Road, E.4.
- 1937 Sumerfield, A. R., 82 Churchgate, Cheshunt, Herts. (Orn.)

- 1937 Tucker, Mrs F., 31 Frederica Road, E.4.
 1935 Tucker, D. G., 31 Frederica Road, E.4. (Orn.)
 1937 Uden, W., 48-50 Acre Lane, S.W.2. (Geol.)
 1937 Uden, Mrs W., 48 Acre Lane, S.W.2. (Biol.)
 1939 Verini, Miss E. M., M.A.(Oxon.), 55a Palmerston Road, Buckhurst Hill, Essex.
 1929 Youé, Miss E., 46 Station Road, E.4. (Bot.)

Country and School Associates:

- 1929 Acland, Miss C. M., M.B.O.U., Walwood, Banstead, Surrey. (Orn.)
 1933 Ashdown, F. S., M.I.H., The Senior School, De La Warr Road, East Grinstead, Sussex. (Pl. G.)
 1931 Benson, Mrs R. B., Dellfield, Featherbed Lane, Felden, Boxmoor, Herts. (Orn., Bot., R.)
 1920 Biddiscombe, W., Ward B, Warren Road Hospital, Guildford, Surrey. (Bot.)
 1934 Biddlecombe, P. E., 30 Hill View Road, Orpington, Kent. (Arch.)
 1896 Bishop, E. B., Lindfield, Marshall Road, Godalming, Surrey. (Bot., Arch., Pl. G., Orn.)
 1908 Bostock, E. D., Alicoombe, Pelham Gardens, Folkestone, Kent. (Lep.)
 1937 Bunker, H. E., 27 Broad Oak Lane, Penwortham, Lancs.
 1936 Carrington, L. I., The Grey Cottage, Chipstead, Surrey. (Orn.)
 1937 Clark, A., 101 Yvonne Court Springs, Transvaal, S. Africa. (Orn.)
 1935 Clerk-Rattray, Miss C. E., Easter Drimmie, Blairgowrie, Perthshire. (Bot., Orn.)
 1924 Collins, Miss F., School of Gardening, Clapham, near Worthing, Sussex. (Orn.)
 1938 Cowper, S. G., B.Sc., Ph.D., M.R.C.S., L.R.C.P., F.Z.S., Liverpool School of Tropical Medicine, Pembroke Place, Liverpool, 3. (Ecol., Ent., Orn.)
 1928 Cuninghame, Miss D. W. M., c/o Courtauld House, Byng Place, W.C.1. (Bot., Ent., Orn., Pl. G., Ecol.)
 1937 Evans, H. J., Jesemin, Amersham Road, Little Chalfont, Bucks. (Orn.)
 1933 Ferrier, Miss J. M., F.Z.S., M.B.O.U., A.A.O.U., Blakeney Downs, Blakeney, Norfolk. (Orn., Ecol.)
 1930 Foster, Mrs S., 12 Victoria Road, Bridgnorth, Shropshire. (Orn.)
 1932 Frazer, A. D., M.B., Ch.B., 74 St James Street, Nottingham. (Pl. G.)
 1936 Garnett, T. R., Charterhouse, Godalming, Surrey. (Orn.)
 1938 Garrett, F. C., D.Sc., South View House, Alnmouth, Northumberland. (Ent.)
 1933 Gibson, Miss E. M., Ashcroft, Station Road, Petersfield, Hants. (Lep., Orn.)
 1938 Hackett, C. A., M.A., D.P.U., Paris, 42 Weoley Park Road, Selly Oak, Birmingham, 29. (Orn.)
 1940 Harvey, A. A., The Nook, Rhodes Minnis, Elham, near Canterbury, Kent. (Orn.)

- 1927 Harvey, J. H., Half Moon Cottage, Preston Cross, Little Bookham, Surrey. (Bot.)
- 1926 Hibbert-Ware, Miss A., F.L.S., M.B.O.U., Hilary, Girton, Cambridge. (Orn.)
- 1915 Hopkins, Prof. Sir F. Gowland, O.M., M.A., M.D., F.R.S., F.R.C.P., 71 Grange Road, Cambridge. (Biochemistry.)
- 1935 Leatherdale, D., Tasli, Hawks Hill, Leatherhead, Surrey. (Geol., Bot., Ent., Pl. G., R.)
- 1933 Leith, R. F., 7 Estcourt Road, Gloucester. (Orn., Arch.)
- 1936 Lewis, Miss M., Brincliffe, Osney Crescent, Paignton, S. Devon. (Arch., Bot., Ecol., Ent., Orn., R.)
- 1933 Lockyer, T. N., LL.B.(Lond.), 14 Parkway, Rickmansworth, Herts. (Arch., Orn., R.)
- 1933 Lockyer, Mrs T. N., 14 Parkway, Rickmansworth, Herts. (Arch., Orn., R.)
- 1931 McKittrick, T. H., Bank for International Settlements, Basle, Switzerland. (Orn.)
- 1932 McKittrick, Mrs T. H., Bank for International Settlements, Basle, Switzerland. (Orn.)
- 1931 Maud, F. H., St Catherine's, Wind Hill, Bishop's Stortford, Herts. (Arch.)
- 1931 Maud, Mrs F. H., St Catherine's, Wind Hill, Bishop's Stortford, Herts. (Arch.)
- 1902 Miller, Miss M. E., The Croft, Rainsford Lane, Chelmsford. (Lep.)
- 1905 Moore, J. W., F.R.E.S., 151 Middleton Hall Road, King's Norton, Birmingham, 30. (Exotic Lep.)
- 1938 Muirhead, D., Malvern House, The Baulk, Worksop, Notts. (Ecol., Orn.)
- 1929 Perry, Mrs M. D., 37 MacAlister Street, Mackay, Queensland, Australia. (Orn., R.)
- 1897 Pike, Oliver G., F.Z.S., M.B.O.U., F.R.P.S., The Bungalow, Leighton Buzzard, Beds. (Orn.)
- 1927 Raikes, Miss D. T., Hên Ysgol, Bwlch, Breconshire. (Arch., Bot., Orn.)
- 1933 Saunders, Miss A. M., St Ann's, Wray Park Road, Reigate, Surrey. (Bot., Pl. G.)
- 1936 Shaw, G. A., 18 Leyburn Grove, Shipley, Yorks. (Bot.)
- 1928 Sparkes, Mrs F. M., 4 Loop Road, Kingfield, Woking, Surrey. (Arch., Bot., R.)
- 1937 Spicer, A. H., M.C., M.R.C.S., L.R.C.P., Graffham, near Petworth, Sussex. (Orn.)
- 1914 Studd, E. F., M.A., B.C.L., F.R.E.S., Exeleigh, Starcross, Devon. (Lep.)
- 1928 Talbot, G., F.R.E.S., Mon Plaisir, Wormley, Surrey. (Lep.)
- 1937 Thomas, L. C., Woodlands, Cobham Road, East Horsley, Surrey. (Bot., Orn.)
- 1931 Thomas, Mrs P. I., Woodlands, Cobham Road, East Horsley, Surrey. (Ecol., Orn., R.)
- 1927 Unwin, Mrs J. M., Fairway, Town Road, Rotherfield, Sussex.

- 1913 Wilde, Mrs C. L., Lindfield, Marshall Road, Godalming, Surrey.
(Arch., Bot., Pl. G.)
- 1936 Willcox, J. M., Emergency Hospital, Tindal House, Aylesbury.
Bucks. (Orn.)
- 1929 Willcox, P. H., Emmanuel College, Cambridge. (Ent., Bot.)

Register

of those at present unable to participate in the activities of the Society,
to whom the "London Naturalist" is to be sent, but not the Syllabus.

-
- 1939 Boyd, B. C. L., 10 Mayfield Road, Dagenham, Essex. (Orn.)
- 1937 Butlin, J. H., 2nd Lieut., 304 Infantry Training Centre, Plumer
Barracks, Crownhill, Plymouth, Devon. (Orn.)
- 1934 Collings, Mrs M., 36 Alfriston Road, S.W.11. (Ent., R.)
- 1928 Cox, Miss L. E., The Old Smugglers' Cottage, Bonchurch, I. of
W. (Bot.)
- 1933 Darashah, Mrs E. G., 108 Stephens Road, Tunbridge Wells,
Kent. (Arch., Bot., R.)
- 1939 De Bosdar, C. D., R.A.F. Station, Hemswell, Lincs.
- 1933 Doran, F. H., Toddsbrook, Great Parndon, Harlow, Essex. (P.L.)
- 1935 Farquharson, A., Le Play House, Albert Road, Malvern. (Ecol.)
- 1937 Fossey, H. B., Gunner 922619, 85th Field Regiment R.A., 337th
Battery, Red House, Wickham Market, Suffolk. (Orn.)
- 1935 Foster, Mrs J. B., 12 Conway Road, S.W.20.
- 1930 Goodwin-Vanner, R. E. F., F.R.S.A., F.R.H.S., Essex Villa,
Guildford, Surrey. (Arch.)
- 1934 Gray, Miss J. W., 10 Canford Road, S.W.11. (Arch., Bot., R.)
- 1937 Green, D. B., 20 Fitzjohn's Avenue, N.W.3. (Orn.)
- 1937 Guichard, K. M. (on service), 10 Lyndhurst Gardens, N.W.3.
(Bot., Ecol., Ent., R.)
- 1927 Hardiman, Miss A., Hyron's Cottage, Woodside Road, Amers-
ham, Bucks. (R.)
- 1935 Harris, A. H., Silton, Loughborough Road, Ruddington, Notts.
(Orn.)
- 1935 Hatch, R. S., 15 Hawsbury Road, Clifton, Bristol, Glos. (Orn.)
- 1937 Hayward, H. H. S., 60 Ridge Crest, Enfield, Middlesex. (Orn.)
- 1938 Hodge, Mrs E. M., 62 Roseneath Road, S.W.11. (Arch.)
- 1937 Hodge, G. A., 62 Roseneath Road, S.W.11. (Orn.)
- 1933 House, F. C., 5 South Bank Lodge, Surbiton, Surrey. (Orn., R.,
Ecol.)
- 1934 Locket, G. H., M.A., M.Sc., 1 Mount Pleasant, Harrow, Middle-
sex. (Ecol., Ent.)
- 1936 Lousley, J. E., 7 Penistone Road, S.W.16. (Bot., Ecol., Orn.)
- 1923 Mann, E., 10 Frankland Road, E.4. (Ecol., Orn., P.L.)
- 1932 Mitchell, Miss M. I., 7 Penwerris Avenue, Osterley, Middlesex.
(Bot., Orn.)
- 1937 Morton, Miss G. M., Linden, The Mould, Ashted, Surrey.
(Arch., Orn.)

- 1938 Mulholland, Rt. Hon. H. G. H., M.P., Speaker's House, Stormont, Belfast. (Orn.)
- 1926 Niblett, M., 10 Greenway, Wallington, Surrey. (Ent., Pl. G.)
- 1933 Oke, E. E., c/o Bank of England, Whitchurch, Hants. (Ent., Orn., R.)
- 1938 Parry-Okeden, Miss M. M. C., The Firs, Warnham, Horsham, Sussex. (Orn.)
- 1937 Pearce, Miss A. H., B.Sc., 15 Clarence Road, St Albans, Herts. (Ecol., Freshwater Biol., Orn.)
- 1922 Pethen, R. W., 108 Northwold Road, E.5. (Ecol., Ent., Orn.)
- 1931 Pethen, Miss R. W., 108 Northwold Road, E.5. (Orn., Rept.)
- 1910 Pratt, W. B., 10 Lion Gate Gardens, Richmond, Surrey. (Lep.)
- 1939 Pullinger, F. A., 148 Sussex Gardens, W.2. (Orn.)
- 1939 Russell-Smith, Miss J. M., Heathfield, Little Heath, Potter's Bar, Herts.
- 1937 Scott, Miss E. M. P., Linden, The Mould, Ashstead, Surrey. (Arch., Orn.)
- 1937 Stirling, Lt.-Col. J. A., The Wick, Richmond Hill, Surrey. (Orn.)
- 1930 Tassart, Miss O. F., 36 Alfriston Road, S.W.11. (Arch., Orn., Pl. G.)
- 1932 Todd, Miss G. E., 17 Queensborough Terrace, W.2. (Bot., Orn.)
- 1934 Tours, H., 7 Briar Road, Kenton, Middlesex.
- 1935 Tracey, N., M.B.O.U., The Black Cabin, South Wootton, King's Lynn, Norfolk. (Orn.)
- 1938 Vesey-FitzGerald, B. S., F.L.S., F.G.S., Editor "The Field," c/o "The Western Morning News," Leicester Harmsworth House, Plymouth. (Ecol., Orn., Zoo.)
- 1933 Ward, Miss I. W., 11 The Close, N.14. (Ichth., Orn.)
- 1920 Watkins, Miss H., 9 North Bar, Banbury, Oxon. (Bot., Orn., R.)
- 1932 Williams, A. R., Barclay's Bank, Haifa, Palestine. (Orn.)
- 1936 Wilson, J. M., Redwing, Townsend Drive, St Albans, Herts. (Orn.)
- 1937 Winters, Miss E. D. M., Linden, The Mould, Ashstead, Surrey. (Arch., Orn.)

NOTE.—The following abbreviations are used in the above lists:—
 Api., Apiculture; Aqua., Aquaria; Arch., Archaeology; Ast., Astronomy;
 Biol., Biology; Bot., Botany; Chem., Chemistry; Col., Coleoptera;
 Conch., Conchology; Dipt., Diptera; Ecol., Ecology; Ent., Entomology;
 Ethn., Ethnology; Geol., Geology; Hem., Hemiptera; Hym., Hymenoptera;
 Ichth., Ichthyology; Lep., Lepidoptera; Mam., Mammals; Micr., Microscopy;
 Mycol., Mycology; Neur., Neuroptera; Orn., Ornithology; Orth., Orthoptera;
 Ool., Oology; Pl. G., Plant Galls; P. L., Pond Life; R., Ramblers' Section;
 Rep., Reptilia; Zoo., Zoology.

*Signifies a Life Member.



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12. }
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London Natural History Society.

THE Society is an amalgamation of the City of London Entomological and Natural History Society, founded in 1858, and the North London Natural History Society, founded in 1892.

A meeting is held each Tuesday (except July and August) in the London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, W.C.1. The room is open from 6 p.m. to 9 p.m., and meetings begin at 6.30 p.m. punctually and terminate about 8.30 p.m., unless other arrangements are announced.

The CHINGFORD LOCAL BRANCH meets at The Clifton Restaurant, opposite Chingford Station, at 8 p.m., on the Second Monday in each month during the winter months.

At these meetings specimens of Natural History interest are exhibited, and papers on various subjects are read and discussed. Visitors may be introduced by members of the Society, and are cordially welcome.

The minimum Annual Subscription for members is 12s 6d, and for associates 5s, but for members under 25 years of age the minimum is 7s 6d. New members and associates pay an entrance fee of 2s 6d. Subscriptions, which should be sent to the Treasurer, become due on January 1st. Members elected after October 1st pay no subscriptions for the current calendar year.

Each member and associate is entitled to one copy of "The London Naturalist" free; extra copies can be purchased by members, if supplies are available, at two-thirds of the published price.

The Society looks with confidence for the support of all who are interested in the study of Natural History.

Further information and syllabus may be obtained from the Secretary:—A. B. HORNBLOWER, 91 Queen's Road, Buckhurst Hill, Essex.

N.B.—During war-time the time and frequency of Meetings may be varied at the discretion of the Council, and the current syllabus should be consulted.

174.05.
Supplement to The London Naturalist. 4

LONDON BIRD REPORT

FOR
1939

Being an Annual Report on Bird-Life within Twenty miles of
St Paul's Cathedral.

COMPILED BY

R. S. R. FITTER, F.Z.S.,

Assisted by the Recording Committee of the Ornithological Section,

L. PARMENTER (Chairman).

P. W. E. CURRIE.

R. C. HOMES.

D. A. T. MORGAN.

E. R. PARRINDER.

C. W. G. PAULSON, M.B.O.U.

Price, 1s 6d.

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THE LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE,
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DATE OF PUBLICATION, JULY 1940.

BACK NUMBERS

OF

LONDON BIRD REPORT.

The 1938 Report is now out of print, but copies of the 1936 and 1937 Reports may be had, price 1s 6d (1s to members of the Society), from the Recorder, Mr R. S. R. Fitter, 81 Ridgmount Gardens, W.C.1, or from the Librarian of the Society at the London School of Hygiene, Keppel Street, W.C.1. The Report for 1936 contains a map showing the boundary of the Society's area.

Before 1936, the annual report on the Birds of the London Area appeared in the *London Naturalist*, copies of which may be obtained from the Librarian at the above address or from the General Secretary at 91 Queen's Road, Buckhurst Hill, Essex. (Prices, 1914-25, 1928-31, 3s per annum; 1932-35, 5s per annum; two-thirds prices to members). The following reprints from the *London Naturalist* are also obtainable (prices in brackets):—

Birds of Epping Forest (1923) (6d).

London Reservoirs and their Influence on Bird Life (1927)
by A. Holte Macpherson (6d).

The Thames as a Bird-Migration Route (1928) by W. E. Glegg (6d).

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Lock (6d).

Birds of the Harrow District (1933) by T. H. Harrisson (1s).

An Identification Key to British Grey Geese (1935) by
John Berry (6d).

London Bird Report, 1939.

INTRODUCTION.

THE fourth issue of the *London Bird Report* as a separate publication is necessarily smaller than its predecessors. The war has dictated a cut in size and has also reduced the number of observers sending in notes and the number of observations each observer has been able to make. About a dozen regular observers are known to the Recorder to be serving in the Armed Forces. For the first seven months of 1939 the specific notes are comparable with those for 1938, but after that most of the reservoirs and sewage farms were closed to bird watchers, first on account of I.R.A. activities and then because of the war. During the autumn migration full observations are, therefore, only available for Staines Reservoirs and Brooklands Sewage Farm. The exceptional season enjoyed at Staines suggests that it would have been indeed a bumper year if the other reservoirs and sewage farms had been open.

The most noteworthy events of the year were the occurrence at Barn Elms in April and at Staines in December of the first two Iceland Gulls ever recorded in the London area, which were also the first records for Surrey and Middlesex respectively. Other notable records included Great Grey Shrikes at Ruislip and Richmond, Short-eared Owls on Walton Heath and Wimbledon Common and Black Redstarts at Bloomsbury, Hampstead and Beddington. At Staines the spring migration brought Turnstone, Sanderling, Little Stint and Black-tailed Godwit to the reservoirs, and in the autumn visits were paid by Common Scoter, eight Black-necked Grebes, Grey Plover, Purple Sandpiper, Greenshank, a November Black Tern and three Little Gulls. Brooklands Sewage Farm produced Turnstone, Ruff, Curlew-Sandpiper, Little Stint, Wood-Sandpiper, Greenshank and Curlew in the spring and Ruff, Green Sandpiper and Greenshank in the autumn.

Some notable recoveries have been made during the year of birds ringed in the London area. A Starling ringed at the Society's trap at Beddington Sewage Farm was recovered in East Prussia, a Linnet ringed at Woldingham and a Robin ringed at Woodford Green were reported from South-West France, a Goosander ringed at Molesey was recovered in Finland and two Black-headed Gulls ringed at Molesey were reported from Denmark. Another Black-headed Gull, picked up dead at Beddington, had been ringed in Estonia.

In view of the fact that publication of the Report of the Committee on Bird Sanctuaries in Royal Parks for 1939 has been postponed, a larger number of records than usual have been included for the parks

and for Inner London generally. Since the main part of the Report was written, however, Mr Holte Macpherson has published many of the most interesting of these records in his annual review of the Birds of Inner London in *B.B.*, xxxiii, 326. It has not been thought necessary to give this reference in each case, as most of the records published by Mr Macpherson had been sent in independently to the Recorder.

In addition to the usual specific notes, special summaries are given of the status of the Goldfinch, Stock-Dove, Common Sandpiper and Redshank, the first three being the species selected by the British Trust for Ornithology for special study during 1939, and the last-named the subject of a special Trust inquiry. The three species selected for special study during 1940 are the *Sand-Martin*, *Teal* and *Curlew*. Any information about the status of these species in the London area will be welcome, and especially answers to the questions set out in the recording circular sent out in January, copies of which are still obtainable from the Recorder. The Recorder will also be glad to supply information about other Trust inquiries, and about the Trust itself, to members interested.

During 1939 further progress was made with the scheme for the ecological study of the bird-life of built-up areas and agricultural land, which was outlined in the recording circular for 1938, copies of which are still available on application to the Recorder. Field meetings held at North Weald, Essex, and Eynsford, Kent, to take transect censuses of agricultural land were well attended. Several individual members have done valuable work on the bird-population of gardens and agricultural land, and have taken transect censuses of agricultural land and built-up areas. It is hoped that this work will continue as far as war conditions permit. The Recorder will be grateful for any notes on these lines and will be pleased to hear from members wishing to know more about the scheme.

The Recorder would also be glad to have special notes on any of the following in the London area:—(a) Rookeries, (b) roosts and fly-lines of rooks, starlings and gulls, (c) any noteworthy effects of the war on bird-life, and (d) the status of birds on and around Hampstead Heath.

The waterfowl census organised by Mr R. C. Homes during the winter of 1938-39 was successfully completed, but it will not be possible to publish the results until after the war. Since most of the Metropolitan Water Board reservoirs were inaccessible it was not possible to continue the census in the winter of 1939-40.

All records in the specific notes are for 1939, except where otherwise stated. The initials after each record indicate the observer responsible for it. The following abbreviations are used:—B.=Buckinghamshire, *B.B.*=*British Birds* magazine, E.=Essex, H.=Hertfordshire, K.=Kent, *L.B.R.*=*London Bird Report*, M.=Middlesex, Res.=Reservoir, S.=Surrey, S.F.=Sewage farm.

Thanks are due to the following 103 observers who have sent in notes. The Recorder also wishes to thank specially Mr W. D. Park for help with entering the records on the sheets.

H. G. Alexander, per R.W.	D. W. Gillingham.	E. G. Pedler.
W. B. Alexander.	W. E. Glegg.	J. H. G. Peterken.
C. B. Ashby.	H. Greenaway, per R.C.H.	R. W. Pethen.
S. Austin.	H. R. Griggs, per R.S.R.F.	W. R. Philipson.
Mrs L. Barker, per C.E.L.	R. W. Hale.	Capt. G. Wand Piercy.
H. A. Baylis, per C.L.C.	P. J. Hanson.	W. E. K. Piercy.
C. Howard Bentham.	J. G. Harrison, per J.M.H.	A. J. Rabbets, per G.E.M.
Dr G. Beven.	Dr J. M. Harrison.	P. W. Ratcliff.
C. H. Blathwayt, per R.S.R.F.	W. R. D. Harrison, per R.S.R.F.	D. A. Rawlence.
B. C. L. Boyd.	P. D. Hayward.	R. A. Richardson.
Miss B. E. Brown.	P. A. D. Hollom.	J. E. Roberts.
H. J. Burkill.	R. C. Homes.	C. C. Rose.
Miss M. H. Butterworth.	G. Hopkins.	Miss A. M. Saunders.
L. I. Carrington.	A. B. Hornblower.	R. P. Sewell, per S.A.
J. S. Carter.	Miss P. Jeffery.	A. Simms, per C.L.C.
S. P. W. Chave.	Mrs H. M. Rait Kerr.	W. J. L. Sladen, per C.L.C.
C. L. Collenette.	K. P. Keywood.	J. A. Smeed.
G. W. Collett.	Dr H. L. Lack.	A. R. Sumerfield.
R. L. Collett.	Miss C. E. Longfield.	P. Thompson.
W. L. Colyer.	Dr G. Carmichael Low.	Dr W. W. Thomson, per R.S.R.F.
P. W. E. Currie.	Mrs E. Macalister.	Miss M. S. van Oostveen.
Miss R. Davis.	A. Holte Macpherson.	W. G. Vincent.
T. W. Davis, per R.S.R.F.	J. D. Magee, per J.A.S.	G. Warburg.
Sir R. C. Davison, per R.S.R.F.	Col. H. A. F. Magrath, per A.B.H.	Mrs W. Boyd Watt.
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F. Dutton, per R.C.H.	A. F. Mitchell, per C.L.C.	A. F. Wigram.
Major J. C. Eales-White.	D. A. T. Morgan.	J. A. Wigzell.
W. G. Ellis.	G. R. Mountfort.	I. A. Williams, per R.S.R.F.
K. V. Elphinstone.	E. T. Nicholson.	A. R. Wilton.
R. S. R. Fitter.	W. D. Park.	R. E. Windsor.
H. B. Fossey.	L. Parmenter.	W. A. Wright.
J. B. Foster.	E. R. Parrinder.	Miss E. Wyatt, per C.L.C.
	E. W. Pearce.	

Birds in the London Area, 1939.

REPORT ON BIRD-LIFE WITHIN TWENTY MILES OF ST PAUL'S CATHEDRAL.

ROOK. *Corvus f. frugilegus* L.

M. 15-16 flying N. over London Bridge on October 29 (R.S.R.F.).

JACKDAW. *Corvus monedula spermologus* Vieill.

M. Two or three flying over the Law Courts in the Strand on March 18 (W.D.P.). Ladbroke Square, W.11, one flying over on Oct. 3 (A.S.).

BRITISH JAY. *Garrulus glandarius rufitergum* Hart.

M. St James's Park, one in August and September (R.A.R.).

STARLING. *Sturnus v. vulgaris* L.

- M. One ringed at Friern Barnet by M. V. Boys on December 9, 1933, was recovered where ringed on April 14, 1939; one ringed at Harrow by C. E. Owen on December 24, 1937, was recovered at Astwick, Beds (32m. N.), on May 21, 1939; one recovered at Laleham on June 24, 1938, had been ringed as adult at Malvern, Worcs (90m. N.W.), on July 27, 1937 (*B.B.*, xxxii, 330; xxxiii, 129).
- S. An adult whose upper mandible protruded beyond the under mandible by about one-third of its own length was seen at Beddington on June 10 (*C.B.A.*). One ringed at the Society's trap at Beddington S.F. on December 26, 1938, by L.P. was recovered at Lyck, East Prussia, in May 1939; one recovered at Egham on April 19, 1939, had been ringed at St Neot's, Hunts (55m. N.) on December 22, 1938 (*B.B.*, xxxiii, 129).

HAWFINCH. *Coccothraustes c. coccothraustes* (L.).

- E. Epping Forest, several records for April; W.A.W. saw young birds in Knighton Wood in August.
- H. Croxleygreen, one on March 19 (*R.S.R.F.*).
- K. Beckenham, a pair, Apr. 1 (*G.E.M.*). Hayes, a male, Apr. 12 (*G.E.M.*).
- M. Bushy Park, several records, one on May 5 (*E.W.P.*). Highgate Wood, an adult and two young on June 10 (*R.S.R.F.*). Kensington Gardens, one on May 9 (*M.S.O.*). Northwood, noted in March (*G.H.*). Ruislip Common, one on February 11 and March 4 (*C.C.R.*). Whitewebbs Park, seen from February to July, fully fledged young seen on June 8 (*A.R.S.*).
- S. Many records from the usual localities on the North Downs and the areas lying immediately to the north (Bookham to Epsom) and south (Reigate to Limpsfield) of the Downs. Nested at Chipstead, Headley, Limpsfield Common and Richmond Park. Noteworthy flocks included one of 40-50 at Reigate in January (*A.M.S.*) and one of 30-40 in Richmond Park on March 21 and 24 (*W.L.C.*).

GREENFINCH. *Chloris c. chloris* (L.).

- K./S. One ringed at Epsom by W.D.P. on February 24 was recovered at Blackheath (15m. N.E.) on March 25 (*B.B.*, xxxiii, 130).

BRITISH GOLDFINCH. *Carduelis c. britannica* (Hart.).

See special account on p. 23.

SISKIN. *Carduelis spinus* (L.).

- K. Beckenham, six in alders in Kelsey Park on January 29 (*A.J.R.*). Hayes, flock of 7-8 on Sept. 24 (*P.W.R.*).
- M. Brent Park, four on February 26 (*G.W.*). Bushy Park, in good numbers in the winter of 1938-39, but fewer in the winter of 1939-40 (*E.W.P.*, *J.E.R.*).
- S. Godstone, small flock in alders, November 11 (*B.E.B.*). Lower Kingswood, six on December 31 (*H.B.*). Richmond Park, present in small numbers till March 12, largest count two flocks of 12 and 43 on February 17 (*C.L.C.*, *W.L.C.*, *D.O'R.D.*). Reigate Heath, about six on Jan. 6 (*H.G.A.*).

LESSER REDPOLL. *Carduelis flammea cabaret* (P. L. S. Müll.).

- E. Reported in winter from Epping Forest and the Roding Valley at Buckhurst Hill by several observers. W.G.E. saw a flock of 80-100 in the Forest on March 12, which contained several birds larger than the others with white lines or streaks on the mantle, very white underparts and breast tinged pink. Unfortunately the rump and wing-bars were not clearly seen.
- H. Bayford, a pair, probably nesting, on May 14 (P.J.H.)
- K. Nested at Farnborough (H.R.G.) and Hayes Common (G.E.M.), and possibly also on Chislehurst Common, where G.E.M. saw a family party on August 13.
- M. Reported in winter from Brent, Bushy and Whitewebbs Parks and from Park Wood, Ruislip. H.M.R.K. saw a small party flying over Lord's on May 22, a pair in Ken Wood on June 8, and six on Hampstead Heath, July 18. Bushy Park, 12 on May 28 (E.W.P.).
- S. Nested in a garden at Roehampton (J.E.R.), on Sheen Common (E.M.), at Tadworth (H.B.), and on Wimbledon Common (R.E.W.). A very large flock frequented Wimbledon Common between January and April, containing 150-200 birds on February 10 (A.H.M., R.E.W., and others).

LINNET. *Carduelis cannabina cannabina* (L.).

- S. A nestling ringed at Woldingham on June 18, 1937, was recovered at Caudéran (Gironde), France, on Nov. 7, 1937 (B.B., xxxii, 331).

BRITISH BULLFINCH. *Pyrrhula p. nesa* Math. and Ired.

- M. St James's Park, one on June 10 (R.A.R.).

CROSSBILL. *Loxia c. curvirostra* L.

- S. Gatton Park, 4-5 feeding in larches on Jan. 5 (H.G.A.).

CONTINENTAL CHAFFINCH. *Fringilla c. coelebs* L.

- K. Sevenoaks district, reported by J.M.H. to be a regular winter visitor and passage migrant. J.M.H. writes "I recognise them in the field and do not consider it necessary to take samples now. I only do this if I have any special investigation on, but consider this matter sufficiently proved now." (See also *S.E. Bird Report*, 1935, p. 29; 1936, p. 20; and 1938, p. 38).

BRITISH CHAFFINCH. *Fringilla coelebs gengleri* Kleinschmidt.

- M. Lincoln's Inn Fields, one on March 4 and 7 (W.D.P.).

BRAMBLING. *Fringilla montifringilla* L.

- E. Small numbers reported from Knighton, Romford S.F. and Sewardstone at the beginning of the year (B.C.L.B., A.R.S., W.A.W.).
- K. Beckenham, three or four in Kelsey Park on January 8 (A.J.R.). Belvedere, a flock of about 100 with about 100 chaffinches had evidently been roosting for a considerable period in a disused works yard, February 1 (J.S.C.).
- S. Many records from the usual and some fresh localities on the North Downs and elsewhere, mainly for the first half of the year. A large flock was seen in Kew Gardens early in the year and was estimated at about 75 by W.R.P. on January 5 and at about 150 by A.F.M.

on January 28. Mortlake, one feeding with several chaffinches on the Thames mud on Dec. 29 (E.G.P.). Late date, Wimbledon Common, May 3 (R.E.W.).

CORN-BUNTING. *Emberiza calandra* L.

E. Reported from Romford S.F. on May 14, from Orsett on June 3. from between Goodmayes and Chadwell Heath Stations on July 7. when one of a pair was carrying food, and from Hainault on July 22 (B.C.L.B.).

H. Colney Heath, a nest with four eggs found on May 27 (A.R.S.).

M. Hayes, one singing, May-July; Staines Moor, bred as usual (C.A.W.).

CIRL BUNTING. *Emberiza c. cirrus* L.

S. Colley Hill, a pair on April 1 (H.J.B.).

TREE-SPARROW. *Passer m. montanus* (L.).

E. King George Res., nested again in drain-pipe in wall of aqueduct (W.A.W.). N. Weald, two on April 16 (R.S.R.F.). Romford S.F., resident (B.C.L.B.).

M. Nested at Mill Hill (W.D.M.) and Staines Moor (C.A.W.). and attempted to do so in Barn Hill Park, Wembley (R.W.H.). Winter flocks in Bushy Park (E.W.P.) and on Staines Moor, where A.F.W. saw about 150 on March 10.

S. Very few records this year. Beddington S.F., a few in the first half of the year (L.P., W.D.P.). Mitcham Common, apparently attempted to nest (C.B.A.). Molesey, one at Island Barn Res. on February 18 and March 18 (P.W.E.C.). Richmond Park, nested as usual in several places (C.L.C.).

WOOD-LARK. *Lullula a. arborea* (L.).

S. North Downs, one singing in a favourite spot on March 22 (G.W.C.) is the only record this year. None were reported in Richmond Park (C.L.C.).

SKY-LARK. *Alauda a. arvensis* L.

M. A few more records have been received for built-up areas in January, supplementing those already published for December 1938 (*L.B.R.*, 1938, p. 31). On January 5 there were 30 on Primrose Hill (W.E.K.P.) and 15 in Regent's Park (H.M.R.K.), where diminishing numbers remained until January 30. One flew over Primrose Hill on March 25, and three were seen in Regent's Park in September (W.E.K.P.).

ROCK-PIBIT. *Anthus spinoletta petrosus* (Mont.).

M. Staines Res., one on October 22 (P.W.E.C., G.C.L., A.H.M.).

S. Reported from the Surrey bank of the Thames opposite Chiswick Eyot on December 30 by G.C.L.

YELLOW WAGTAIL. *Motacilla flava rayi* (Bp.).

E. Breeding reported from Chingford and Sewardstone (W.A.W.).

K. Late date, West Wickham, October 7 (A.J.R.).

M. Brent Res., did not breed as in former years (W.D.M.). St James's Park, seen on April 20, May 1, September 13 and 19 (R.A.R.).

- S. Breeding reported from Barn Elms Res. (G.C.L., E.G.P.), Beddington S.F. and Brooklands S.F. (W.D.P.)

GREY WAGTAIL. *Motacilla c. cinerea* Tunst.

H. Watford, nested in Cassiobury Park (J.D.M., J.A.S.).

K. Beckenham, probably nested in Kelsey Park (G.E.M., P.W.R.).

M. Charing Cross, one on jetsam in Thames on October 14 (J.S.C.). St James's Park, several times in autumn, often two, once three (R.A.R.). St John's Wood, one on roof of Lord's grandstand, Oct. 7 (H.M.R.K.). Hyde Park, one on Oct. 14 (R.A.R.). Regent's Park, one at the Zoo on Oct. 25 (D. Seth-Smith, *B.B.*, xxxiii, 326).

S. Probably bred at Brooklands S.F. (W.G.E. saw a young bird on June 16) and Watermeads, Mitcham (C.B.A., G.B.). Visited a garden at Limpsfield in June (B.E.B.).

PIED WAGTAIL. *Motacilla alba yarrellii* Gould.

M. St James's Park, noted in Apr., Aug. and Oct. (K.V.E., R.S.R.F.); also seen from an office in Victoria St. in Oct. and Nov. (E.R.P.).

S. The Fetcham roost (*L.B.R.*, 1938, p. 7) was less used this year (H.J.B.). P.W.E.C. reports some evidence of a roost in Cheam Warren in Oct. and Nov. Waterloo Bridge, one on July 7 (W.D.P.).

WHITE WAGTAIL. *Motacilla a. alba* L.

E. King George Res., a male on April 15 (W.A.W.).

M. Staines Res., two males on April 13 (G.E.M.).

S. Barn Elms Res., one on April 24 (G.C.L.).

BRITISH TREE-CREEPER. *Certhia familiaris britannica* Ridgw.

M. St John's Wood, one in a garden, November 9 (H.M.R.K.).

BRITISH BLUE TIT. *Parus caeruleus obscurus* Prazak.

M. Mr F. Wormald, in a letter to *The Times* of May 23, records that a pair of blue tits with a nest of their own took to feeding a brood of young robins in an old kettle in his garden at Potters Bar on May 12. In the space of a minute or so they paid six visits to one of the robins. There was no apparent antagonism between the two species, the robins merely refraining from visiting the nest while the tits were there.

BRITISH MARSH-TIT. *Parus palustris dresseri* Stejn.

S. Headley, three, presumably two cocks and a hen, on February 19 engaged in display and chases, uttering a prolonged nuthatch-like whistle; the crests of the cocks were much elevated (P.W.E.C.).

BRITISH WILLOW-TIT. *Parus atricapillus kleinschmidtii* Hellm.

K. Chevening, one on North Downs on July 16 (R.S.R.F.).

M. Reported from near Elstree Res. on March 18 (R.W.H.), from Ruislip Common by several observers in the winter months, from near Stanwell on February 12 and December 31 (C.A.W.), and from Whitewebbs Park on April 24 (A.R.S.).

S. Epsom Common, a pair on April 29 and again on April 30, when they were seen feeding on insects in gorse flowers and another was observed feeding on sallows (P.W.E.C.). Headley, one on March 19 feeding on gorse and dead bracken, from which it obtained a

small pupa, and stripping the white outer bark from a small birch (P.W.E.C., W.D.P.). Limpsfield Common, one on January 1, two on February 5, one on April 2 and June 17 (P.W.E.C., L.P.). Mitcham, two at Watermeads on January 14 and May 6 (G.B.). Wimbledon Common, seen several times (M.H.B.).

BRITISH LONG-TAILED TIT. *Aegithalos caudatus rosaceus* Mathews.

- M. Bushy Park, a flock of more than 50 on November 2 (J.E.R.). Kensington Gardens, eight on Mar. 13 (R. W. Hayman, *B.B.*, xxxiii, 326).
 S. Ashted Common, an adult on May 13 with its tail bent up over its back, presumably as a result of brooding (C.B.A.). Chaldon, a flock of about 200 on Alderstead Common during very cold weather on February 8 (L.I.C.).

GREAT GREY SHRIKE. *Lanius e. excubitor* L.

- M. One was seen on Ruislip Common on February 5 (G.H.), November 12 (P.J.H., A.R.S.), November 25 (G.H.), and December 30 (C.C.R.). On November 12 several feathers were recovered from the bird's prey and submitted by A.R.S. to Mr H. F. Witherby, who pronounced them to be a sky-lark's.
 S. One was seen in Richmond Park on February 13 and on Ham Common on March 30 (W.J.L.S.).

RED-BACKED SHRIKE. *Lanius e. collurio* L.

- E. Nested at Waltham Abbey (A.R.S.).
 H. Early date, Rye House, April 27 (F.J.J.).
 K. Nested at Biggin Hill (three pairs, H.R.G., G.E.M.), Farnborough (one pair, H.R.G.), and probably at Hayes (G.E.M.).
 M. Nested on Staines Moor as usual (C.A.W.).
 S. Nested on Ham Common (one pair, W.J.L.S.), Kenley Common (one pair, E.W.P.), Limpsfield Common (one pair, R.C.H.), and Mitcham Common (five pairs, of which only two successfully hatched a full clutch, W.W.T.). Barn Elms Res., one, Aug. 25 & 26 (E.G.P.).

SPOTTED FLYCATCHER. *Muscicapa s. striata* (Pall.).

- M. Nested on Hampstead Heath (H.M.R.K.), in Ladbroke Square, W.11 (A.S.), in Regent's Park (W.E.K.P.), in Kensington Gardens and in the grounds of Holland House (A.H.M.).
 S. Late date, Epsom, September 30 (G.B.).

PIED FLYCATCHER. *Muscicapa h. hypoleuca* (Pall.).

- S. Mitcham Common, a male on June 19 (W.W.T.).

CONTINENTAL GOLDCREST. *Regulus r. regulus* (L.).

- K. Very prevalent in the Sevenoaks district in 1939, and may safely be regarded as a regular and common winter visitor, arriving at the end of September and remaining over till some time in April (J.M.H.). In 1938 J.M.H. recorded a big increase in goldcrests in the Sevenoaks district on October 9 and suggested that this was due to birds of this subspecies (*S.E. Bird Report*, 1938, p. 43). On November 7, 1937, a bird of this subspecies was obtained at Sevenoaks (J.G.H. in *S.E.B.R.*, 1937, p. 28).

- M. [In view of Dr Harrison's note for the Sevenoaks district quoted above, J.E.R.'s note of a large influx of goldcrests into Bushy Park on November 1 acquires added interest. This influx into Bushy Park in early November has been recorded in several previous years, e.g., 1934 and 1935.]

BRITISH GOLDCREST. *Regulus r. anglorum* Hart.

- M. One near Kensington Palace on Sept. 12 and one in the Zoological Gardens on Oct. 24 (Sir C. Hurcomb and D. Seth-Smith, *B.B.*, xxxiii, 326).

- S. Banstead, nested in evergreen three feet from ground (J.E.R.).

FIRECREST. *Regulus i. ignicapillus* (Temm.).

- M. Ruislip Common, the pair first seen on December 31, 1938 (*L.B.R.*, 1938, p. 8) was seen again by C.C.R. on January 7 and one bird was seen on January 9 (R.W.H., C.C.R.).

CHIFFCHAFF. *Phylloscopus c. collybita* (Vieill.).

- S. Late date, Epsom, October 14 (G.B.).

WILLOW-WARBLER. *Phylloscopus t. trochilus* (L.).

- M. Bushy Park, nested in a bramble-brake three feet from the ground, fledging period nine days (J.E.R.).

- S. Late date, Richmond Park, October 10 (M.H.B.).

WOOD-WARBLER. *Phylloscopus sibilatrix* (Bechst.).

- K. Nested on Hayes and probably on Keston Commons (G.E.M.).

- M. Kensington Gardens, one on May 10 (M.S.O.). Ken Wood, probably did not nest this year (H.M.R.K.).

- S. Nested on Limpsfield Common (P.W.E.C.) and Wimbledon Common (R.E.W.). Reigate Heath, one on May 21 ate a small green larva (R.S.R.F.).

GRASSHOPPER-WARBLER. *Locustella n. naevia* (Bodd.).

- M. Early date, Ruislip, April 14 (W.R.P.).

- S. Reported as usual from Ashted, Bookham, and Epsom Commons and Walton Heath. Early date, Epsom Common, Apr. 15 (R.C.H.).

REED-WARBLER. *Acrocephalus s. scirpaceus* (Herm.).

- E. Nested at Dagenham Breach (B.C.L.B.).

- H. Nested at Cheshunt (A.R.S.).

- S. Nested at Barn Elms Res. (three pairs, G.C.L., E.G.P.), Beddington Lane Ponds (one pair, W.W.T.), and Mitcham Junction gravel pits (four or five pairs, G.B., W.W.T.).

SEDGE-WARBLER. *Acrocephalus schoenobaenus* (L.).

- M. Kensington Gardens, one on May 9 (M.S.O.). St James's Park, one on April 22 (R.A.R.).

GARDEN-WARBLER. *Sylvia borin* (Bodd.).

- M. Kensington Gardens, one on May 11 (M.S.O.).

BLACKCAP. *Sylvia a. atricapilla* (L.).

- E. Late date, Epping Forest, September 9 (W.A.W.).

- M. Kensington Gardens, one on April 24 and August 16 (M.S.O.).

LESSER WHITETHROAT. *Sylvia c. curruca* (L.).

H. Late date, Cheshunt, September 22 (A.R.S.).

K. Nested at Farnborough (H.R.G.) and Hayes (G.E.M.).

M. Nested at Mill Hill (W.D.M.). St James's Park, one, Sept. 3 (R.A.R.).

S. Nested on Ham Common (W.J.L.S.) and in a garden near Sheen Common (P.T.). Late date, Sheen Common, September 14 (E.G.P.).

DARTFORD WARBLER. *Sylvia undata dartfordiensis* Lath.S. The only record received is of two cocks on March 31 in locality A mentioned in previous *L.B.R.*'s.FIELDFARE. *Turdus pilaris* L.

M. Regent's Park, one on January 1 and four on January 5 (W.E.K.P.). St John's Wood, 30 flying W. on October 15 (H.M.R.K.).

S. Barn Elms Res., a flock of about 20 roosted in the trees by the pool from January to March (M.H.B., H.L.L., G.C.L., A.F.W.).

BRITISH SONG-THRUSH. *Turdus e. ericetorum* Turton.H. One recovered at Waltham Cross on December 24, 1938, had been ringed at Cambridge (37m. N.), Jan. 20, 1938 (*B.B.*, xxxii, 332).S. One recovered at South Norwood on June 18, 1939, had been ringed at Whipnade, Beds (36m. N.W.), Jan. 5, 1939 (*B.B.*, xxxiii, 132).REDWING. *Turdus m. musicus* L.

M. Several of those which came to the Central Parks in the cold spell of Dec. 1938 stayed on till Jan., and a few passed through at the end of March (A.H.M. and others). Late date, Bushy Park, May 7 (E.W.P.).

BLACKBIRD. *Turdus m. merula* L.E. One ringed at Woodford Green by S. Boardman on November 27, 1937, was recovered at Bildeston, Suffolk (50m. N.E.) on July 10, 1938 (*B.B.*, xxxii, 333).

M. Cellophane from a cigarette packet was among the material used for building a nest in Lincoln's Inn Fields (W.D.P.).

WHEATEAR. *Oenanthe oe. oenanthe* (L.).

Passage through the area lasted in spring from March 30 to May 20 and in autumn from August 13 to November 5. Late date, Wimbledon Common, November 5 (R.E.W.).

M. St John's Wood, one on Primrose Hill on April 10 (W.E.K.P.) and one at Lord's on August 28, which perched on the roof of the grandstand and on a crab-tree (H.M.R.K.). One in Kensington Gardens and two in Regent's Park on Aug. 24 (A.H.M.).

WHINCHAT. *Saxicola rubetra* (L.).

E. Bred at Walthamstow Res. (W.A.W.) and reported in breeding season at Abridge (J.H.G.P.), Bulphan (W.G.E.), King George Res. (A.R.S.) and Romford S.F. (B.C.L.B.).

H. Cheshunt Common, a pair on July 9 (S.A., P.J.H.).

K. Noted at Elmers End S.F. on Sept. 19 (P.W.R.).

M. Hampstead Heath, one on May 18 (K.D.S.). Staines Moor, one on June 18 (D.A.T.M.) and August 8 (C.A.W.).

- S. Bred on Epsom Common (R.S.R.F.) and in Richmond Park (C.L.C.).
Reported on passage from Barn Elms Res. and Beddington S.F.

BRITISH STONECHAT. *Saxicola torquata hibernans* (Hart.).

- S. Nested on Bookham Common (L.I.C.), Epsom Common (W.D.P.), Mitcham Common (C.B.A.), Walton Heath (L.I.C.), and Wimbledon Common (R.E.W.), but not apparently in Richmond Park, for the first time since records have been kept (C.L.C.).

REDSTART. *Phoenicurus ph. phoenicurus* (L.).

- Bred as usual in Bushy Park, Epping Forest and Richmond Park.
K. Farnborough, a juvenile on July 20 (H.R.G.). This species is rarely seen in the Kent part of the area.
S. Late date, Epsom, October 12 (G.B.).

BLACK REDSTART. *Phoenicurus ochrurus gibraltariensis* (Gm.).

- M. Bloomsbury, a one-year-old male was seen and heard on numerous occasions between May 20 and June 22 on the back of the British Museum and the new London University building (S.P.W.C., G.C.L., see also *B.B.*, xxxiii, 81, 108). S.P.W.C. saw a second bird on June 14, also without a white bar on the wing. Hampstead Heath, one on November 20 (H.M.R.K.).
S. Beddington S.F., the three birds first seen on December 10, 1938 (*L.B.R.*, 1938, p. 11) remained for some weeks during 1939. Only one observer (L.I.C.) ever reported seeing all three at once, but two were seen as late as Feb. 12 (W.D.P.), and L.P. saw one, Mar. 18.

BRITISH ROBIN. *Erithacus rubecula melophilus* Hart.

- E. One ringed at Woodford Green as a nestling by S. Boardman on May 10, 1938. was recovered in France at Guéthary (Basses-Pyrénées) on September 16, 1938 (*B.B.*, xxxii, 333).

SWALLOW. *Hirundo r. rustica* L.

- M. Late date, Staines Res., November 19 (P.T.).
S. Breeds annually in building full of hydrogen fluoride fumes (J.S.C.).

HOUSE-MARTIN. *Delichon u. urbica* (L.).

- K. A big passage movement was noticed at Sevenoaks about October 6, when J.G.H. saw two to three thousand birds in the air "as far as the eye could reach."
M. Nested in built-up areas at Hampton Wick (R.S.R.F.) and Hendon (D.W.).
S. Nested in built-up areas on the edge of Mitcham Common (S.P.W.C.) and in New Malden (W.L.C.).

SAND-MARTIN. *Riparia r. riparia* (L.).

- This is one of the special species for 1940, and a full account of its status in the area will be given in the *L.B.R.* for 1940.
H. Early date, St Albans, March 19 (G.W.).

SWIFT. *Apus a. apus* (L.).

- M. Although fewer than usual were seen over the Serpentine (A.H.M.), several pairs frequented the Ladbroke Grove district throughout the summer (R.C.D., A.S.).

NIGHTJAR. *Caprimulgus e. europæus* L.

E. Epping Forest, two pairs on June 8 (W.A.W.).

H. Cuffley, present from May 23 to August 2 (A.R.S.).

K. Probably nested near Orpington (H.R.G.).

M. Stanmore Common, one on September 19 (R.C.H.).

S. Nested on Walton Heath (L.I.C.) and probably on Epsom Common (R.S.R.F.). Richmond Park, one on August 15 (A.F.M.).

KINGFISHER. *Alcedo atthis ispida* L.

M. St James's Park, one on September 4 (R.A.R.).

GREEN WOODPECKER. *Picus viridis pluvius* Hart.

M. Ladbroke Square, W.11, one on August 30 (A.S.).

BRITISH GREAT SPOTTED WOODPECKER. *Dryobates major anglicus* (Hart.).

M. St James's Park, one twice in second week of October (R.A.R.).

St John's Wood, one came to peanuts in a garden, November 15 (H.M.R.K.). Staines Moor, one mobbing a Little Owl on December 10 persistently uttered a cry almost indistinguishable from the alarm note of a Mistle Thrush. This note is described in the *Handbook* as "associated with courtship" (R.S.R.F.).

S. Putney, a pair regularly visited dead pear-trees in a garden from August 6 to October 10 (M.H.B.).

BRITISH LESSER SPOTTED WOODPECKER. *Dryobates minor comminutus* (Hart.).

K. Beckenham, probably nested in Beckenham Place Park; two pairs in Kelsey Park on April 24 (G.E.M.).

M. Campden Hill, one in grounds of Cam House, Sept. 10 (D.A.T.M.). Hyde Park, one, Mar. 10 (W.J.L.S.) and one early in May (A.H.M.).

S. Nested at Watermeads, Mitcham (G.B.) and in Richmond Park (C.L.C.). Putney, one came to dead pear-trees in a garden in every month from January to September (M.H.B.).

WRYNECK. *Jynx t. torquilla* L.

K. Nested in an orchard near Farnborough (H.R.G.).

S. Nested on Limpsfield Common (G.B., G.W.C., P.W.E.C.) and attempted to do so on the edge of Kenley Common (E.W.P.). Putney, one in a garden on Apr. 15 (M.H.B.). Reigate, heard on Apr. 18 and 19 (H.G.A.).

CUCKOO. *Cuculus c. canorus* L.

E. Late date, Chadwell Heath, September 19 (B.C.L.B.).

M. St James's Park, one on August 3 (R.A.R.). St John's Wood, one in a garden, August 25 (H.M.R.K.). Holland House grounds, one on May 14 and June 8 (A.H.M.).

LONG-EARED OWL. *Asio o. otus* (L.).

S. Kew Gardens, one on December 12 (A.F.M.).

SHORT-EARED OWL. *Asio f. flammeus* (Pontopp.).

S. Wimbledon Common, one on January 5 (A.F.W.). Walton Heath, one to five on various dates from February 11 to March 23. Five were seen together on February 12 (H.B., L.I.C., W.D.P., and

others, see also *B.B.*, xxxiii, 82). Eighteen pellets sent to Dr C. B. Ticehurst by W.D.P. proved to consist almost entirely of the remains of small birds such as sky-larks.

WHITE-BREASTED BARN-OWL. *Tyto a. alba* (Scop.).

- S. One recovered at Merstham on February 20, 1939, had been ringed as a nestling at Capel, Surrey (11m. S.W.) on July 21, 1938 (*B.B.*, xxxiii, 134). Chipstead, nested (L.I.C.).

KESTREL. *Falco t. tinnunculus* L.

- M. Nested on the West Tower of the Imperial Institute, South Kensington (G.C.L.) and at Mill Hill (D.W.). Regent's Park, one on January 2 (W.E.K.P.). St James's Park, often seen (K.V.E., R.S.R.F.). J.S.C. considers that the behaviour of kestrels near gas-holders near London often suggests they are nesting on them.

COMMON BUZZARD. *Buteo b. buteo* (L.).

- E. [Two seen over Epping Forest on September 23 were probably referable to this species (W.A.W.).]
K. Swanscombe, two soaring over a chalk-pit came low enough to make identification certain, August 30 (G.E.M.).

SPARROW-HAWK. *Accipiter n. nisus* (L.).

- K. One recovered at Farnborough on July 14 had been ringed as a nestling at Rochester (20m. N.E.) on July 7, 1938 (*B.B.*, xxxiii, 134).
M. Bushy Park, nested in a tall pine (J.E.R.). Hampstead, one chased a sparrow in Thurlow Road on February 19 (K.D.S.). St John's Wood, one in a garden on August 28 (H.M.R.K.).
S. Richmond Park, nested (C.L.C.).

COMMON HERON. *Ardea c. cinerea* L.

- E. There were 45 occupied nests at Walthamstow Res. (R.W.P.) and 13 at Wanstead Park (W.B.A.), compared with 56 and 14 respectively in 1938.
H. An interesting paper by H. N. Southern on the summer flocking of herons at Copped Hall, Totteridge, appeared in *B.B.*, xxxii, 346.
S. Gatton Park, three pairs nested, an increase of one on 1938, and 13 were present throughout the winter (R.S.R.F., G.W.P.). Her-
sham, 16 occupied nests, an increase of nine on 1938 (P.A.D.H.); one ringed here as a nestling on April 12, 1930, was recovered here on October 2, 1938 (*B.B.*, xxxii, 335). Richmond Park, 61 occupied nests, all in Spanish chestnuts, an increase of eight or nine on 1938 (C.L.C., A.H.M.).

WHITE-FRONTED GOOSE. *Anser albifrons albifrons* (Scop.).

- K. Two flying E. over Sevenoaks on Apr. 12 (J.G.H.).

CANADA GOOSE. *Branta canadensis canadensis* (L.).

- E. Walthamstow Res., two very tame birds, first seen on Feb. 18, probably nested (R.W.P. and other observers).
S. Barn Elms Res., one on March 11 and April 27 (W.R.P.). Brooklands S.F., up to four on several dates, April 28 to June 2 (W.G.E.). Gatton Park, 16 on March 12 (L.I.C.) and three pairs on April 1 (R.S.R.F.). Limpsfield Grange, up to 30 on pond in

autumn (B.E.B.). Oxted, one on Coltsford Mill Pond, April 2 (R.S.R.F.).

SHELD-DUCK. *Tadorna tadorna* (L.).

E. Sewardstone, two on June 4 (W.A.W.).

M. Littleton Res., three on February 18, and two on March 18 and 19 (W.E.G., P.A.D.H., G.C.L.). Staines Res., three on January 21, two on February 7, one on March 5, and two on April 16 and June 10 and 16 (A.H.M., C.A.W. and others). The bird which was first seen in October 1932 has not been seen since November 1938.

GADWALL. *Anas strepera* L.

M. Kensington Gardens, a duck on the Round Pond, Mar. 18 (W.D.P.).

M./S. R. Thames, a drake by Waterloo Bridge on April 18 (G.B.), 24 by Lonsdale Road, Barnes, on November 9 and seven by Chiswick Eyot on December 30 (G.C.L.).

S. This species has frequented Godstone annually since 1932, Barn Elms annually since 1933, and the Beddington and Mitcham Ponds annually since 1937. It has bred at Barn Elms in 1936, 1938 and 1939 and at Beddington in 1938 and probably in 1939. Although these records are almost certainly originally due to escapes from St James's Park, the gadwall may now reasonably be claimed as a Surrey bird. (It would be interesting to know how soon after its introduction in 1850 the gadwall was accepted as a Norfolk bird.)

Barn Elms Res., one with six young on June 17 and 19; max. nine with a mallard-gadwall hybrid on March 23 (G.C.L.). Beddington, and Mitcham Junction, max. four, one adult drake and three ducks or young birds, on August 13 (G.B.). Godstone, the old drake was seen on the Mill Pond on April 2 (W.B.A.) and on Stangrave Pond in October and on November 11 (B.E.B.). Lonsdale Road Res., up to four in January and March (D.O'R.D., H.M.R.K., C.A.W.) and 11 on August 30 (G.C.L.). Wimbledon Park Lake, a drake on Jan. 21, Feb. 18 and Mar. 18 (A.R.W.).

TEAL. *Anas c. crecca* L.

This is one of the special species for 1940, and a full account of its status in the area will be given in the *L.B.R.* for 1940.

WIGEON. *Anas penelope* L.

E. Connaught Water, four on January 15 (W.A.W.).

M. Ruislip Res., one on February 15, three on October 29, and one on December 16 (W.R.P., C.A.W.).

M./S. A pair on the Thames tideway at Barnes in January (D.O'R.D.).

S. Barn Elms Res., up to six from January 21 to March 18 (many observers). Godstone Mill Pond, two on November 11 (B.E.B.). Island Barns Res., three on January 21 (P.W.E.C.). Lonsdale Road Res., about 40 on January 5 (H.M.R.K.), a pair on January 14, and a drake on Jan. 28 (C.A.W.). West Molesey Res., one on Jan. 15 (P.A.D.H.), 29 on Feb. 18, and 21 on March 18 (P.W.E.C.).

PINTAIL. *Anas a. acuta* L.

H. Hamper Mill, a drake and probably also a duck, on Oct. 22 (G.H.).

- M. Ruislip Res., a duck on February 15 (W.R.P.). Staines Res., one on January 28, February 5 and March 26 (H.M.R.K., G.C.L., A.H.M.) and a pair from April 9 to May 20 (A.H.M., C.A.W.) and on December 27 (G.C.L.).
- S. A drake seen by many observers at Lonsdale Road Res., Barn Elms Res. and on the Thames nearby between January 1 and March 25 was probably the bird reported from the Thames at Chiswick on December 26, 1938 (*L.B.R.*, 1938, p. 14). A drake seen in Richmond Park by W.L.C. on January 17 was possibly the same bird. An immature drake in Richmond Park from Dec. 3-17 (A.F.M.).

SHOVELER. *Spatula clypeata* L.

- E. Dagenham Breach, a pair on May 27 (B.C.L.B.). Sewardstone, two drakes, Mar. 18 (P.H.J.). Walthamstow Res., 3, Sept. 30 (W.A.W.).
- M. Staines Moor, a pair on June 4 (G.C.L.) and one on August 7 (C.A.W.); also reported from Littleton and Staines Res., max. 73 at Staines on Oct. 21 (C.A.W.). Hyde Park, a duck on the Serpentine, Sept. 30 (R.A.R.).
- S. Brooklands S.F., present from June 1 to August 9, numbers rising to over 20 on July 17 (W.G.E.); a pair was seen on May 10 and 20 (C.B.A., G.B., W.G.E.).

COMMON POCHARD. *Aythya ferina* (L.).

- M. Osterley Park, two pairs on June 3 (G.C.L.).
- M./S. R. Thames, a duck between Hungerford and Waterloo Bridges on November 24 (J.S.C.).
- S. Barn Elms Res., the large flock which came with the cold weather of December 1938 (*L.B.R.*, 1938, pp. 15, 33) dispersed gradually, being estimated at 500-550 on January 7 (W.G.E., R.C.H.), at 370 on January 11 (G.C.L.), and at over 200 on February 6 (A.H.M.).

TUFTED DUCK. *Aythya fuligula* (L.).

- E. Connaught Water, a pair on June 18 and one on July 2 (W.A.W.). Sewardstone, one brood on July 11 (A.R.S.). Walthamstow Res., six broods on July 8 (W.A.W.).
- H. Cheshunt, two broods on July 10 (A.R.S.). Hamper Mill, two broods on July 22 (G.H.).
- M. Osterley Park, five pairs on June 3 (G.C.L.). Regent's Park, bred (W.E.K.P.).
- M./S. R. Thames, three ducks by Waterloo Bridge, Dec. 27 (W.D.P.).
- S. Breeding reported from Barn Elms Res. (two pairs, G.C.L.), Beddington Lane Ponds (three pairs, G.B., W.D.P.), Beddington Farm Pond (one pair, G.B.), and Mitcham Junction gravel pits (four pairs, G.B.). The large flock which appeared at Barn Elms with the cold weather at the end of 1938 (*L.B.R.*, 1938, p. 33) rose to its peak at beginning of January, 1400-1500 being counted on January 7 (R.C.H.), and then dwindled fairly rapidly to 884 on January 9 (A.H.M.), 633 on January 11 (G.C.L.), 577 on January 21 (R.S.R.F.), over 400 on February 6 (A.H.M.), 354 on February 18 (D.A.T.M.), and 91 on March 18 (M.H.B.).

SCAUP-DUCK. *Aythya m. marila* (L.).

- E. Walthamstow Res., up to six from January 14 to February 11 (E.T.N., J.H.G.P., and others).
 M. Brent Res., a drake on Feb. 4 and 12 (G.W.). Hyde Park, a drake on the Serpentine, Dec. 7-11 (G.C.L., A.H.M.). Kensington Gardens, a young drake on the Round Pond for some days after Jan. 28 (G.C.L., A.H.M.). Littleton Res., a duck on Mar. 18 (W.E.G., G.C.L.). Ruislip Res., a duck on Mar. 12 (G.H.). Staines Res., two on Mar. 12, and two ducks on Oct. 25 (G.C.L., A.H.M.), one on Nov. 4 (J.S.C.) and three on Nov. 14 (A.H.M.).
 S. Barn Elms Res., a drake on January 11 (H.M.R.K.), a pair on January 12 (A.F.W.) and up to five from February 6 to March 3 (A.H.M. and others). W. Molesey Res., a pair, Mar. 18 (P.W.E.C.).

GOLDENEYE. *Bucephala c. clangula* (L.).

- E. King George Res., one or two usually to be seen from January 21 to March 20, max. six on February 2 (A.R.S., W.A.W.). Walthamstow Res., a drake on February 11 (E.T.N.).
 M. Hampton Res., one on February 18 (P.A.D.H.). Kempton Res., four on January 21, two on February 18 and March 18 (P.A.D.H.). Littleton Res., two on January 21, four on February 18 and three on March 18 (W.E.G., G.C.L.). Ruislip Res., two on January 26 (W.R.P.) and February 4 (C.C.R.), and one on February 11 (C.C.R.) and 15 (W.R.P.) and December 17 (W.G.E.). Staines Res., spring max. 38 on March 26, a drake in full winter plumage stayed till June 25 (A.H.M.); autumn max. nine on December 25, first seen, Oct. 29 (G.C.L., A.H.M., C.A.W.). Stoke Newington Res., one on Jan. 21, Feb. 18, and Mar. 18 (C.W.).
 M./S. R. Thames, one by Chiswick Eyot, February 28 (D.O'R.D.).
 S. Barn Elms Res., one or two, January 14 to March 31 (A.H.M. and others). Island Barn Res., two on January 21 and one on March 18 (P.W.E.C.). Lonsdale Road Res., two or three from January 2-31 (E.G.P. and others). West Molesey Res., max. 17 on March 18 (P.W.E.C.).

LONG-TAILED DUCK. *Clangula hyemalis* (L.).

- M. The bird first seen on October 1, 1938 (*L.B.R.*, 1938, p. 16) stayed until April 10 (C.A.W. and others). A drake reappeared on September 26 (G.C.L.) and was seen by many observers till the end of the year. This is the eighth successive winter in which one or more long-tailed duck have visited Staines.

COMMON SCOTER. *Melanitta n. nigra* (L.).

- M. Staines Res., a young bird on November 14 (A.H.M.).
 S. Barn Elms Res., an adult duck was first seen on January 14 by C.A.W. and last seen on June 13 by A.H.M.

GOOSANDER. *Mergus m. merganser* L.

- E. Connaught Water, three on January 8 (W.A.W.), five on February 15 (F.J.J.) and one on March 5 (W.A.W.). King George Res., stayed till April 20, max. 10 on January 27 (A.R.S., D.W.G.,

- W.A.W.). Walthamstow Res., up to three from January 14 to February 11 (E.T.N. and others).
- M. Bushy Park, noted in January (J.E.R.). Hampton Court, one on the Long Water from February 7 to March 13 (J.E.R.). Kempton Res., 22 on January 21, and 14 on February 18 (P.A.D.H.). Littleton Res., max. 35 on March 18 (W.E.G., G.C.L.). Ruislip Res., five on January 11 (W.R.P.). Staines Res., spring max. over 100 on January 28 (H.M.R.K.), last seen April 24 (G.C.L., A.H.M.); autumn max. 116 on December 10, first seen on October 22 (G.C.L., A.H.M.); a big fall in numbers was noted after Dec. 10, viz. 77 on Dec. 14, 27 on Dec. 21 (G.C.L.).
- M./S. R. Thames, opposite Syon House, seven on April 7, two on April 10 and three, Dec. 25 (A.F.M.); at Hampton, 6, Jan. 21 (P.A.D.H.).
- S. Barn Elms Res., one from January 3 to February 8 (R.C.H., W.R.P., A.F.W.). Island Barn Res., max. 68 on February 18 and March 18 (P.W.E.C.). Richmond Park, max. 21 on January 10 (D.O'R.D.). West Molesey Res., max. 95 on January 21 (R.C.H.). Two birds ringed at Molesey on December 18 and 19, 1937, respectively, were recovered at Kasko, West Finland, on September 26, 1938, and Slough, Bucks (11m. N.W.) on January 20, 1939 (B.B., xxxii, 356; xxxiii, 156).

RED-BREASTED MERGANSER. *Mergus serrator* L.

- M. Ruislip Res., a drake on February 4 (G.H., C.C.R.).
- S. West Molesey Res., a red-headed bird on March 18 (P.W.E.C.).

SMEW. *Mergus albellus* L.

- E. Walthamstow Res., seen by many observers up to March 3 (H.M.R.K.), max. 20 on February 11 (P.A.D.H.); two on November 26, one on December 16 and four on December 30 (W.A.W.).
- H. Elstree Res., one on January 21 (R.W.H.).
- M. Brent Res., three on February 4 (G.W.) and one on February 19 (R.W.H.). Hampton Res., one on February 18 (P.A.D.H.). Kempton Res., six on January 21 (P.A.D.H.). Kensington Gardens, one on the Round Pond on January 17 (M.S.O.). Littleton Res., one on January 21 (W.E.G.). Ruislip Res., seven red-headed birds on February 11 (G.H.), a drake on February 15, a red-head on February 23 (W.R.P.) and a drake on December 17 (W.G.E.). Staines Res., one on January 1 (P.A.D.H., C.A.W.) and March 19 (A.R.S.), one from Nov. 29 to Dec. 27 (G.C.L. and others); a second bird was seen on Dec. 10 and 17 (G.C.L., A.H.M., C.A.W.).
- M./S. R. Thames, observed between Putney and Richmond on February 23 (K.V.E.); nine on December 29 and 14 on December 30 near Chiswick Eyot (G.C.L., E.G.P.).
- S. Barn Elms Res., max. 21 on February 6 (A.H.M.), last seen on March 4 (G.B., C.A.W.). Beddington Farm Pond, the two first seen on December 25, 1938 (L.B.R., 1938, p. 17) were seen again on January 7, 8, and 29 (G.B.) and February 12 (L.P.); on February 12 what were probably the same birds were seen on one of the Mitcham Junction gravel pits a few hundred yards away by G.B., G.E.M.,

and W.D.P.; a smew was again seen at Beddington on December 10 (G.B.) and 17 (C.B.A.)—on the latter date it flew off towards the Mitcham Junction gravel pit, where it was seen later in the day. Lonsdale Road Res., max. 18 on January 2, last seen on March 23 (A.H.M., E.G.P.). Island Barn Res., one on February 18 (P.W.E.C.). West Molesey Res., max. 64, Jan. 21 (R.C.H.).

CORMORANT. *Phalacrocorax c. carbo* (L.).

E. King George Res., 11 on September 23 (W.A.W.).

H. Elstree Res., one on December 1 (H.M.R.K.).

M. Staines Res., one on Sept. 26 (G.C.L.) and Oct. 28 (A.H.M.).

S. Barn Elms Res., max. 7, Feb. 20 (E.G.P.), last seen, May 4 (G.C.L.).

SHAG. *Phalacrocorax a. aristotelis* (L.).

H. Hamper Mill, one on September 7 and 9 (G.H.).

GREAT CRESTED GREBE. *Podiceps c. cristatus* (L.).

E. Bred as usual at Navestock and Sewardstone (W.A.W.).

S. Nested at Beddington Lane Ponds (one pair, G.B., W.D.P.), Mitcham Junction gravel pits (seven pairs, C.B.A., G.B.) and the Pen Ponds, Richmond Park (two pairs, C.L.C.).

SLAVONIAN GREBE. *Podiceps auritus* (L.).

M. Staines Res., the bird first seen on December 27, 1938 (*L.B.R.*, 1938, p. 18) was seen again on January 1 (A.H.M., E.G.P., C.A.W.) and one first seen on November 5 was seen on several dates till December 3 (G.C.L., A.H.M., C.A.W., see also *B.B.*, xxxiii, 197).

S. Richmond Park, one on the Upper Pen Pond on December 16 (W.E.G.). West Molesey Res., one on March 7 (H.M.R.K.).

RED-NECKED GREBE. *Podiceps g. griseigena* (Bodd.).

E. Walthamstow Res., one on January 21 (E.T.N., J.H.G.P., H.A.P., W.G.V.) and March 3 (H.M.R.K.).

H. Cheshunt, one on September 14 (A.R.S.).

M. Brent Res., two on March 18 (W.D.M.).

S. Barn Elms Res., the bird first seen on December 23, 1938 (*L.B.R.*, 1938, p. 18) was last seen on February 4 (G.B., G.C.L., and others).

BLACK-NECKED GREBE. *Podiceps n. nigricollis* Brehm.

M. An unusually large number frequented Staines Res. this autumn between July 30 and December 21. The max. seen was eight on October 10 (G.C.L., A.H.M.) and seven were recorded on October 16 and 21 and Nov. 4 and 5. They had all gone on Dec. 27 (G.C.L.).

S. Barn Elms Res., one on August 30 and 31 (M.H.B., G.C.L.). Lonsdale Road Res., one on January 5 (H.M.R.K.). West Molesey Res., three on March 7 (H.M.R.K.).

LITTLE GREBE. *Podiceps r. ruficollis* (Pall.).

K. Beckenham, nested in Kelsey Park (A.J.R.).

M. Nested at Osterley Park (C.A.W.). Regent's Park, one on November 20 (H.M.R.K.). St James's Park, nested for first time since 1914 (C. S. Bayne, *B.B.*, xxxiii, 328).

M./S. R. Thames, one at Hampton, January 21 (P.A.D.H.).

S. Nested at Fetcham Pond (H.J.B., W.D.P.), Kew Gardens (H.M.R.K.), Mitcham Junction gravel pits (C.B.A., G.B.) and Waddon (L.P.).

GREAT NORTHERN DIVER. *Colymbus immer* Brünn.

M. Staines Res., the bird first seen on December 11, 1938 (*L.B.R.*, 1938, p. 19) was seen again on Jan. 1 and 5 (*A.H.M.*, *W.R.P.*, *C.A.W.*).

BLACK-THROATED DIVER. *Colymbus a. arcticus* L.

E. Walthamstow Res., one on Nov. 18 (*R.W.P.*, *W.A.W.*).

RED-THROATED DIVER. *Colymbus steilatus* Pontopp.

M./S. R. Thames, one at Twickenham, Nov. 1-15 (*G.C.L.*, *A.H.M.*).

STOCK-DOVE. *Columba oenas* L. See special account on p. 25.

TURTLE-DOVE. *Streptopelia t. turtur* (L.).

M. St James's Park, one between May 25 and June 12 (*R.A.R.*).

RINGED PLOVER. *Charadrius h. hiaticula* L.

E. Romford S.F., 25 on January 22, one on April 1, four on August 27, 27 on Oct. 30, 30+ on Dec. 9, and two on Dec. 17 (*B.C.L.B.*).

M. Staines Res., single birds on February 12 (*A.F.W.*), May 6 and 20, Aug. 27 (*A.H.M.*), Sept. 17 (*C.A.W.*) and Oct. 6 (*A.H.M.*).

S. Barn Elms Res., one on August 12 (*E.G.P.*). Beddington S.F., one on November 12 (*L.P.*). Brooklands S.F., one or two from May 22 to June 10, two on July 13 (*W.G.E.*), and one to five from August 17-26 (*G.W.C.*, *W.G.E.*, *P.A.D.H.*).

GOLDEN PLOVER. *Charadrius apricarius* (? subsp.).

E. Dagenham, five on January 28. Romford S.F., 16 on February 5 and one on April 1 (*B.C.L.B.*). Waltham Marsh, last seen on May 5, first seen on October 20; thirty on December 2 (*A.R.S.*).

M. Chiswick Eyot, one feeding on Thames mud, December 29 (*E.G.P.*). St John's Wood, about 40 flew W. over Lord's on December 29 (*H.M.R.K.*). Staines Res., single birds flew over on November 5 (*G.C.L.*) and 24 (*A.H.M.*). Stanwell, 52 on April 2 and ten on December 26 (*C.A.W.*).

S. Beddington S.F., one on January 1, two on December 30 and four on December 31 (*C.B.A.*).

GREY PLOVER. *Squatarola s. squatarola* (L.).

M. Staines Res., one flew over calling on October 8 (*G.C.L.*, *A.H.M.*).

LAPWING. *Vanellus vanellus* (L.).

S. An interesting paper by M. D. Lister on the fluctuations in the Lapwing population on Priesthill Farm, Ewell, appeared in *B.B.*, xxxii, 260.

TURNSTONE. *Arenaria i. interpres* (L.).

M. Staines Res., one on May 7 (*A.H.M.*).

S. Brooklands S.F., four in summer plumage on May 22 (*W.G.E.*).

RUFF. *Philomachus pugnax* (L.).

S. Brooklands S.F., one on May 19 (*W.G.E.*), one on August 20 and 22 (*W.G.E.*, *P.A.D.H.*), two from August 24-28 (*W.G.E.*, *W.D.P.*), one on August 30, none on September 6 (*W.G.E.*), three from Sep-

tember 16-20 (C.B.A., W.G.E., W.D.P.), two on September 22, November 11 and 18 (W.G.E.).

SANDERLING. *Crocethia alba* (Pall.).

M. Staines Res., one on May 18 (A.H.M.).

S. Barn Elms Res., one in winter plumage on April 6 (E.G.P., see also *B.B.*, xxxii, 400).

DUNLIN. *Calidris alpina* (? subsp.).

E. King George Res., one on July 30 (W.A.W.). Romford S.F., three on January 8, eight on February 12, 15 on February 19, 24 on March 5, 85 on December 9, and eight on December 17 (B.C.L.B.).

M. Staines Res., one on December 23, and a flock of eight flew over on Dec. 27 (G.C.L., A.H.M.). Kensington Gardens, one by the Round Pond on May 3 may have been *schinzii* (Sir C. Hurcomb, *B.B.*, xxxiii, 326). Hyde Park, one by the Serpentine on Dec. 7 (A.H.M.).

S. Barn Elms Res., the birds brought by the cold spell of December 1938 (*L.B.R.*, 1938, p. 21) did not stay long, nine being seen on January 2 (A.H.M.), eight on January 3 (W.R.P., A.F.W.), and two on January 7 (R.C.H.); on spring migration single birds appeared on March 18 (M.H.B.), April 22 (D.A.T.M., A.F.W.), and May 22 (E.G.P.), and W.R.P. saw two on April 25; on autumn migration single birds were seen on June 19 (a young bird, G.C.L.) and July 22 (A.H.M.). Brooklands S.F., on spring migration there were ten on March 11, one on March 31, five on April 15, three on April 16, and one from April 22 to May 22 (W.G.E.); on autumn migration there were four on July 13, three on July 17, one or two from July 21 to August 22 (W.G.E., P.A.D.H.), five on September 17 (W.D.P.) and two on November 18 (W.G.E.).

CURLEW-SANDPIPER. *Calidris testacea* (Pall.).

S. Brooklands S.F., four in summer plumage on June 2, and one on August 28 (W.G.E.).

LITTLE STINT. *Calidris minuta* (Leisl.).

M. Staines Res., one on June 4 (G.C.L.).

S. Brooklands S.F., two on May 31 and June 1 (W.G.E.).

PURPLE SANDPIPER. *Calidris m. maritima* (Brünn.).

M. Staines Res., one on November 5 (G.C.L., A.H.M., P.T., C.A.W., see also *B.B.*, xxxiii, 197). This is the second record for Middlesex and the third for the London area as a whole.

COMMON SANDPIPER. *Tringa hypoleucos* L. See special account on p. 27.

WOOD-SANDPIPER. *Tringa glareola* L.

S. Brooklands S.F., one on May 31 and June 1 (W.G.E.).

GREEN SANDPIPER. *Tringa ochropus* L.

E. Buckhurst Hill, one in Roding Valley, Aug. 8, Dec. 3 & 17 (W.A.W.).

H. Hamper Mill, parties of five, seven and eight seen during August and September (G.H.).

M. Staines Moor, one on August 7 (C.A.W.). Staines Res., two on September 14 (A.H.M.).

- S. Brooklands S.F., one or two from July 22 to August 27 and one on October 3 (W.G.E., W.D.P.). Epsom S.F., one on August 19 (W.D.P.). Mitcham, one at Watermeads on April 8 (G.B.). The locality on Oxted Brook where G.W.C. has recorded this species in the late summer and autumn of 1933 and 1936-39 proves to be about half a mile outside the Society's area.

BRITISH REDSHANK. *Tringa totanus britannica* Mathews.

See special account on p. 28.

GREENSHANK. *Tringa nebularia* (Gunn.).

- E. Abridge, one on April 8 (J.H.G.P.).
H. Hamper Mill, one on August 27 (G.H.).
M. Staines Moor, one on August 5 and two on August 27 (C.A.W.). Staines Res., three on August 31 and single birds on September 1 (A.H.M.), 17 and 24 (C.A.W.).
S. Barn Elms Res., one on June 17 (A.H.M.). Brooklands S.F., two on June 2 (W.G.E.), one from August 16-20 (W.G.E., P.A.D.H.), two from Aug. 22-27 and one on Aug. 28 and 30 (W.G.E., W.D.P.).

BLACK-TAILED GODWIT. *Limosa l. limosa* (L.).

- M. Staines Res., a male in full plumage, April 27 (G.E.M.).

COMMON CURLEW. *Numenius a. arquata* (L.).

- E. Romford S.F., one on June 13 (B.C.L.B.). Wennington Marshes, one at Great Coldharbour Point, April 14 (R.S.R.F.).
H. Cheshunt, one over Boyer's Lake, July 14 (A.R.S.).
M. St James's Park, one on August 2 (R.A.R.). St John's Wood, a pack flying W. over Lord's on December 29 (H.M.R.K.). Staines Moor, six on August 5 and two on August 7 (C.A.W.). Wembley Park, several heard calling at 11 p.m. on August 13 (R.W.H.).
S. Barn Elms Res., one on April 8 (E.G.P.). Brooklands S.F., one on March 13 (W.G.E.).

COMMON SNIPE. *Capella g. gallinago* (L.).

- H. Nested at Croxleygreen (J.D.M., J.A.S.).
S. Nested at Buckland (R.S.R.F.).

JACK SNIPE. *Lymnocyrtus minimus* (Brünn.).

- E. Sewardstone gravel pit, two on February 19 (W.A.W.), one on March 5 (E.T.N.) and one on April 2 (W.A.W.). Waltham Marsh, three on October 20 (A.R.S.).
H. Cheshunt, one on February 13 (A.R.S.).
M. Ruislip Res., one or two till April 1 (W.R.P., C.C.R.), 10 on October 29 and smaller numbers till the end of the year (P.J.H., W.R.P., C.C.R., A.R.S., C.A.W.). Staines Moor, one on Jan. 29 (C.A.W.).
S. Beddington S.F., three on Oct. 1 (P.W.R.).

WOODCOCK. *Scolopax r. rusticola* L.

- E. Epping Forest, one on December 31 (F.J.J.). Theydon Bois, one flew over a garden on three occasions in September (R.P.S.).
K. Hayes, five shot, Jan. 28; one shot and two seen on Dec. 2 (G.E.M.).
M. Bushy Park, wintered in 1938-39 and was first seen in the winter of 1939-40 on November 2 (J.E.R.). Hampstead Heath, one on the

West Heath on February 9 (K.D.S.); in *The Times* of February 13 Mr H. Figgis reported two on the West Heath during Feb.

- S. Mitcham, one at Watermeads on October 29 (G.B.). Richmond Park, one on January 8 (W.J.L.S.) and 14 (E.W.) and October 28 (D.A.R.). Upper Gatton estate, seen regularly December-June (G.W.P.). Wimbledon Common, one on February 6 (Adm. Sir B. Domville in *The Times*, February 8, 1939).

BLACK TERN. *Chlidonias n. niger* (L.).

E. King George Res., two on June 24 (W.A.W.).

M. Staines Res., seven on May 31 (A.H.M.), and one on November 4 (R.S.R.F.) and 5 (G.C.L., A.H.M., P.T., C.A.W., see also *B.B.*, xxxiii, 197).

S. Barn Elms Res., one on May 16 (A.H.M.).

COMMON TERN. *Sterna h. hirundo* L.

E. King George Res., one on May 20 and twelve on June 24 (W.A.W.).

S. Barn Elms Res., four on June 3 (A.H.M., E.G.P., P.T.), two on June 17 (G.C.L., A.H.M.) and one on June 29 (E.G.P.) Mitcham Junction gravel pit, one on May 6 (C.B.A., G.B.).

LITTLE GULL. *Larus minutus* Pall.

M. Staines Res., a juvenile on September 30 (A.H.M.), an adult going into winter plumage on October 29 (D.A.T.M.) and one on November 15 and 16 (G.C.L., A.H.M.).

BLACK-HEADED GULL. *Larus r. ridibundus* L.

M. One ringed at Littleton on December 27, 1934, was recovered at Acton (10m. N.E.) on February 28, 1939 (*B.B.*, xxxiii, 160).

S. Two birds ringed at Molesey on December 7, 1936, were recovered in Denmark in 1938, one in Jutland on June 18 and one in Zealand on October 22 (*B.B.*, xxxii, 363). A bird recovered by G.B. at Beddington S.F. on March 22, 1939, had been ringed on the island of Oesel, Estonia, on July 6, 1929.

SCANDINAVIAN LESSER BLACK-BACKED GULL. *Larus f. fuscus* L.

M. Wembley Park, one with a noticeably sooty-black mantle feeding on a sports ground on January 16 (R.W.H.).

M./S. R. Thames, two, with two British, by Chiswick Eyot on December 30 (G.C.L.).

S. Barn Elms Res., two on April 20, six on August 9 and twenty on August 28 (A.H.M.).

BRITISH LESSER BLACK-BACKED GULL. *Larus fuscus graellsii* Brehm.

The largest counts were of 220 on the Thames foreshore at Hammersmith on August 21 and of 219 at Barn Elms Res. on August 9 (A.H.M.). Several winter records were received as usual.

GREAT BLACK-BACKED GULL. *Larus marinus* L.

Records of small numbers in the winter months were received from Barn Elms Res., Chiswick Eyot, King George Res., Lonsdale Road Res., Richmond Park, St James's Park, and West Molesey Res.; max. count, 12 at Molesey on January 1 (P.A.D.H.).

ICELAND GULL. *Larus leucopterus* Vieill.

M. Staines Res., an immature bird, probably in second year plumage, was seen on December 25 by C.A.W. and again on December 31 by G.C.L., A.H.M. and C.A.W. This was the first definite Middlesex record and the second for the London area as a whole. (See also *B.B.*, xxxiii, 281.)

S. Barn Elms Res., one on April 15 (D.A.T.M., see also *B.B.*, xxxiii, 28). This was the first record for Surrey and for the London area. As the bird flew off in the direction of the Middlesex shore, it is also claimed as the first Middlesex record.

WATER-RAIL. *Rallus a. aquaticus* L.

K. Beckenham, one in Kelsey Park, on April 2 (A.J.R.).

S. Beddington and Mitcham Junction Ponds, the usual winter records, but not between March 25 and December 17 (C.B.A., G.B., L.P.). Brooklands S.F., one on September 16 (C.B.A.).

PHEASANT. *Phasianus colchicus* L.

M. Bushy Park, two eggs were found in a Mallard's nest (J.E.R.).

COMMON PARTRIDGE. *Perdix p. perdix* (L.).

M. Bayswater, one on the lawn of Inverness House on April 21 flew off eastwards (C.H.B.). Fulham, one in a small garden in the early morning of April 18 flew off on being disturbed (L.B.).

RED-LEGGED PARTRIDGE. *Alectoris r. rufa* (L.).

E. North Weald, a pair on April 16. Stapleford Tawney, three on July 9 (R.S.R.F.). Waltham Abbey, noted on January 28 and March 20 (A.R.S.).

S. Beddington S.F., one on December 17 (C.B.A.).

Special Species for 1939.

THE reports on the species chosen by the British Trust for Ornithology for special study in 1939 are based on the Society's records and an exhaustive review of the published literature. A preliminary list of sources was given in the *London Bird Report* for 1936, and it is hoped to bring this up to date in the next issue. References to counties are only to those parts which lie within 20 miles of St Paul's Cathedral (see map in 1936 *Report*).

BRITISH GOLDFINCH. *Carduelis c. britannica* (Hart.).

In the London area the Goldfinch is a local and sparsely distributed resident, and a common visitor from late summer to early spring, often consorting with other finches. At the beginning of the century it was much scarcer both in the breeding season and as a visitor during the rest of the year than it is now. Its subsequent increase is commonly attributed to the effect of the Wild Birds Protection Act, but this may well be a case of *post hoc, ergo propter hoc* argument.

In the Kent part of the area it was fairly common as a breeding species when Ticehurst wrote in 1909, particularly around Sevenoaks and Westerham and in the Upper Darent valley. In 1939 it was reported to be a common breeding species on the North Downs in the vicinity of Farnborough, Orpington, Shoreham, Halstead, Brasted, Cudham and Chevening. In one small area near Farnborough four nests were found and two or three other pairs probably nested. Nesting was also reported from Hayes in 1939, and birds have been seen in the breeding season in the past few years in Beckenham Park and at Eynsford, Otford and Westerham.

In the Surrey part of the area breeding has been reported since 1929 from Addlestone, Beddington, Godstone, Ewell, Kew Gardens, Limpsfield, Mitcham Common and Richmond Park, and birds have also been reported in the breeding season from Arbrook Common, Epsom Sewage Farm, Norbury Park, Putney, Wallington, Warlingham, Weybridge, Wimbledon Common and Worms Heath in the same period. The scarcity of breeding records from the Surrey part of the North Downs is noteworthy.

North of the Thames the Goldfinch appears to be less common as a breeding bird. In Bucks there is only a record from Richings Park in 1931. In Middlesex the Goldfinch was almost unknown at the beginning of the century in the Harrow and Staines districts, but apparently nested regularly round Enfield and at Winchmore Hill prior to 1908. In the Harrow district T. H. Harrisson dates its re-establishment as a breeding species from 1927-28. Since then the bird has been recorded as breeding at Harrow-on-the-Hill, Ruislip, Southall, Osterley, Hampton Court, Northwood, Stanmore, Elstree, Enfield Chase and in the Colne Valley between Harefield and Uxbridge, and has been noted in the breeding season at Wembley, Mill Hill, Stag Lane and Horsendon Hill and on Hampstead Heath. E. C. Rowberry found that it had increased considerably in the south-west of the county, nine pairs nesting in one area in 1931. In Hertfordshire there are only three recent breeding records, from Bushey in 1930, and from Cassiobury Park, Watford, in 1932 and 1934. In Essex the only actual breeding records are from Chigwell, Claybury and Woodford in 1907-08, but the bird has been seen in the breeding season of recent years in Epping Forest, at Nazeing and in the Roding Valley at Passingford Bridge, Stanford Rivers and Ongar.

Orchards are a very favourite habitat of goldfinches in the nesting season, which explains why they are abundant in Kent and S.W. Middlesex. In the Farnborough district they show particular preference for one type of plum-tree and only rarely nest in apple-trees. Gardens, hedgerows, oak copses and open commons are also mentioned as nesting habitats, and nests have been recorded in pines, in a high beech hedge, in elder and laurel bushes, and 15 feet up in a horse-chestnut. They rarely nest very far from human habitations.

From July round to early April records of goldfinches in the London area are much more frequent. The types of habitat most favoured are

alder trees, and waste ground on which grow seeding thistles and other composite plants. Out of 56 separate feeding records, 16 refer to alders, 18 to thistles, 12 to other plants, mostly composites, three each to birches and conifers, two to insects, and one each to a cornfield and a hayfield. There are records for four kinds of thistle, *Cnicus lanceolatus*, *C. arvensis*, *C. palustris* and *Silybum marianum*, for such composites as the dandelion (*T. officinale*), groundsel (*S. vulgaris*), ragwort (*S. jacobaea*), hardheads (*C. scabiosa*, *C. nigra* and *C. cyanus*), teasel (*D. sylvestris*), golden-rod (*S. virgaurea*), and *Aster trifolium*, and for such other plants as angelica (*A. sylvestris*), chickweed (*S. media*), persicaria (*P. persicaria*), great plantain (*P. major*), and shepherd's purse (*C. bursa-pastoris*). The hardheads, great knapweed, black knapweed and cornflower appear to be second favourites to the thistles. The two insect food records relate to birds visiting a pear-tree in a Putney garden apparently to feed on aphids, and to a flock of 20-30 feeding on the fly *Aleyrodes brassicae* Walker on Brussels sprouts in Bushy Park in January 1939.

The size of goldfinch flocks seen in the London area is usually between half-a-dozen and 30, but flocks of 50-100 are not infrequent and several of over 100 are on record. The largest is one of over 500 in Bushy Park in October 1937. Other large flocks include one of 200 seen mobbing a Little Owl in the Beddlesstead valley near Warlingham by A. Beadell prior to 1932, and flocks of 120-160 and about 150 seen on Epsom Common on September 14, 1933, and September 18, 1938, respectively. These very large flocks are usually composed of goldfinches only, but the smaller parties are often mixed with siskins and lesser redpolls, especially on alders, and association with chaffinches and linnets has also been recorded. The question naturally arises—Where do all these winter goldfinches come from? Many of them no doubt are birds bred locally or in other parts of the British Isles, but it is difficult to believe that none of them come from the Continent, though no specimen of the continental form has yet been satisfactorily identified anywhere in the British Isles.

In the autumn and winter goldfinches occasionally visit the Central Parks in small numbers and sometimes turn up in suburban gardens or in open spaces such as those surrounding Barn Elms and Walthamstow Reservoirs. In general, however, in the London area the goldfinch is a bird of rather sparsely built-up areas, avoiding both the open country and large tracts of brick and mortar.

R. S. R. F.

STOCK-DOVE. *Columba oenas* L.

The Stock-Dove is a locally common resident in the London area, frequenting mainly park-like country with old and scattered trees in the breeding season and often found on arable land in the winter. The nesting sites of all recent breeding records for which details are available were holes in trees or the tops of pollard willows.

Since 1920 there is no record of the Stock-Dove breeding in the Kent part of the area, and the only note of its occurrence between April and

June is of several seen on Stone and Swanscombe marshes on May 26, 1934. In Surrey since 1920 breeding has been reported from Ashtead Common, Banstead, Beddington Park, Gatton Park, Ham Common, Limpsfield, Oatlands Park, Petersham, Richmond Park and Warlingham and it is stated to be resident at Beddington Sewage Farm, Mitcham Junction, Nonsuch Park, Ravensbury Park, and Watermeads. North of the Thames, in Bucks the Stock-Dove probably breeds in Black and Langley Parks. Since 1920 it has been recorded as breeding in Middlesex at Harefield, Ruislip, Harrow, Staines and Bushy Park and as present in the breeding season at East Lodge, Trent Park, Stanwell Place, Osterley Park, Hendon Park Farm, Stanmore, Wembley Park, and Ken Wood. In Herts it has definitely bred since 1920 at Chorleywood, Elstree and Sandy Lodge and probably at East Barnet Valley, Northaw and Panshanger Park. In Essex definite breeding records since 1920 come from Epping Forest, Theydon and Wanstead Park and the bird has also been seen in the breeding season at Brentwood, Little Warley, Romford Sewage Farm, South Chingford, Waltham Marsh and Walthamstow Reservoirs. In Inner London the Stock-Dove is probably commoner than most people think, as it is easily confused with the numerous semi-domestic pigeons. A pair nests regularly in Holland Park and possibly nesting also takes place in Kensington Gardens, where Stock-Doves are often seen in the breeding season.

The earliest nest recorded is one with two eggs on March 5, 1936, at Sandy Lodge and the latest one with two eggs in Bushy Park on July 3, 1936. On June 29, 1924, a nest with three eggs was found at Oak Hill, Theydon. The only unorthodox nesting site recorded is inside a boat-house on Navestock Park Lake, where a pair nested in 1906 and 1909.

Most flocks of Stock-Doves appear to range from half-a-dozen to 30 or 40 birds, but larger ones are regular in some areas. The largest of these were one of about 300 birds on the site of the new reservoirs at Staines in October 1937, and one of 250-300 birds on arable land at Hayes, Kent, in January 1938. Flocks of about 150 were seen at Chorleywood in December 1933 and on arable land at West Molesey in March 1938, and flocks of about 100 were seen at Brooklands Sewage Farm in August and September 1929, in Richmond Park in March 1935, and at West Molesey in October 1938. There is some evidence from Richmond Park that Stock-Doves are not truly gregarious but that the flocks are aggregations of birds attracted to a common feeding-place, in this case the place where food is put down for the deer. A few Stock-Doves sometimes go with Wood-Pigeon flocks.

A recent correspondence in *British Birds* (xxxiii, 140, 165, 196) has drawn attention to the occasional flocking of Stock-Doves in the breeding season. Flocks of 12 and 35 in early May and June 1933 and 1934 respectively were seen at Elstree and one of 40 at Bushey in May 1936. To these can be added flocks of 44 at Beddington Sewage Farm on June 26, 1932, and of about 60 at West Molesey on May 28, 1938. R. S. R. F.

COMMON SANDPIPER. *Tringa hypoleucos* L.

This species is a regular and common double passage migrant in the London area. It is most often seen at the reservoirs and sewage farms but it has also been recorded from most of the rivers and large ponds and is likely to occur wherever there is water.

On the spring migration it is usually first seen about the middle of April and has left for its northern breeding grounds by the end of May. The extreme dates appear to be April 5, 1939, at Kelsey Park, Kent, and June 11, 1933, at Navestock Lake in Essex. The peak of the spring migration occurs about the last week of April to the first week of May, April records being more frequent in Surrey and Kent than in the northern part of the area. The Common Sandpiper is much less numerous on the spring passage than in the autumn and the records are mainly of single birds, and even at the peak of the spring migration it is exceptional for more than two or three to be seen together. The return passage is of longer duration and occasional birds are seen in early July. Larger numbers arrive towards the end of the month and the migration continues throughout August to the end of September, while stragglers are often recorded up to mid-October. The extreme dates for the autumn passage are July 1, 1938, at Barn Elms Reservoirs in Surrey, and October 31, 1937, also at Barn Elms. The peak of the autumn migration is from the end of July to mid-September, and during this period the Common Sandpiper is observed at the reservoirs and sewage farms in numbers varying from 5 to 20 birds, the maximum being 35 at Romford Sewage Farm on August 13, 1938.

In the London area the reservoirs and sewage farms, mainly grouped in the Thames and Lea Valleys, are well-known haunts both of birds and of bird-watchers, so it is not surprising that the majority of records of the passage of Common Sandpipers should be from these places. At Barn Elms Reservoir in Surrey it has been regularly observed on both migrations since 1925. At other reservoirs and sewage farms in the valleys of the Thames, Lea, Colne, Wandle, Wey, Hogsmill, and Mole and at Elstree and Brent Reservoirs and Romford Sewage Farm it is seen most years on the autumn migration but less frequently on the shorter spring passage, when it is possible that the smaller numbers escape notice.

Apart from the reservoirs and sewage farms, occasional birds are seen by most of the rivers and at the larger ponds in the area, including those in public parks and commons. There are no records from the Cray or Darent Valleys in Kent, probably due to lack of observation. In the Thames valley, apart from the reservoirs, the Common Sandpiper has been observed at various points along the river from Greenhithe to Chertsey and it is seen most years in the London Parks, particularly in Richmond Park and by the Serpentine. In Inner London before 1925 the Common Sandpiper occurred fairly often on the spring migration but one flying across the Serpentine on August 7, 1925, was recorded by A. Holte Macpherson as the first seen in Inner London on the autumn passage for 21 years. A Common Sandpiper was recorded

again in Kensington Gardens or Hyde Park in the autumns of 1926-7-8, and since 1933 the proportion of autumn, particularly August, records for the Central Parks has increased and the Common Sandpiper is now more commonly seen on the autumn passage than in the spring. C. L. Collenette reports a similar increase in the proportion of August records for Richmond Park since 1936.

The Common Sandpiper's characteristic call note has been heard over the closely populated streets of London on the following occasions:—

Clapton, 8/9/26, heard calling while passing over; Thornton Heath, 28/7/30, one flew over High Street at 10.30 p.m. calling in the dark; Smith Square, S.W.1, 23/7/30, one heard calling twice; West Barnes, Malden, 27/5/35, flying west at 9.30 p.m.; East Sheen, 10/9/36, birds heard calling overhead at 8 p.m., also on 5/8/37 at 10.15 p.m. and on 13/8/37 at 12.15 a.m.

In recent years the Common Sandpiper has wintered on at least seven occasions in the London area:—At Walthamstow Reservoirs, 1927-8 and 1938-9; at Barn Elms Reservoirs, 1930-1; at West Molesey Reservoirs, 1930-1, 1931-2 and 1938-9; and at Hampton and Kempton Reservoirs, 1932-3. These records all refer to solitary birds which have been observed on a number of dates in the winter months between the Autumn and Spring migrations.

E. R. P.

BRITISH REDSHANK. *Tringa totanus britannica* Mathews.

The Redshank now breeds regularly in all the larger river valleys in the London area, and is a regular passage migrant, in larger numbers in spring than autumn, at the reservoirs and some sewage farms. As a regular winter visitor it appears to be almost confined to the Thames foreshore below Woolwich. It seems probable that Redshanks have always bred on the Thames marshes, and that round about 1905-6 they began to spread inland, until by now they have occupied nearly all the suitable localities available. In most cases marshy fields near a running stream, sometimes only a very small one, are chosen, but in one or two cases they have nested in dry grass fields. In the London area Redshanks usually return to their breeding haunts in mid-March, but occasionally as early as February. In the rare cases where they are seen in their breeding haunts after July, the birds are probably on passage. A brief summary of known breeding localities follows; the date of the first known nesting or probable nesting is given in brackets.

Thames Marshes: breeds in some numbers as far up as Erith Marshes on the Kent side and Beckton on the Essex side, but as these marshes are rarely visited, actual records are few. Twenty pairs were seen on Swanscombe Marshes in 1934 and 1937 and sixteen pairs on Erith Marshes in 1938.

Darent Valley: two or three pairs nest between Westerham and Lullingstone (c. 1919).

Pool River Valley: noted at Elmers End Sewage Farm in April and May 1935 and March 1937, but no evidence of nesting.

Wandle Valley: three or four pairs nest on Beddington Sewage Farm (1910; certainly since 1929).

Hogsmill Valley: has been recorded on Epsom Sewage Farm in the breeding season in several years since 1929, and one or two pairs may have bred in some years, e.g. 1935.

Mole Valley : probably breeds at Fetcham cress beds (1935) and Island Barn Sewage Farm, Molesey (1929).

Wey Valley : several pairs breed at Brooklands Sewage Farm (1929).

Colne Valley : Langley Sewage Farm, one pair (1937); Staines Moor, three pairs (1932); between Uxbridge and Harefield (1929); Harefield cress beds, possibly in 1927; Ruislip Reservoir, 1933-38; Harefield, near Jackets Lane, two pairs, 1935-36; Croxleygreen, four pairs, 1939; Hamper Mill (1935); Oxhey, one pair probably in 1933; Radlett, probably nested in 1915, 1916, and 1929; Aldenham, probably nested in 1926-27; Elstree Reservoir, one pair nested in most years, 1929-35; Letchmore Heath, probably nested in a dry grass field, 1934; Colney Street, two pairs, 1939 (one or two pairs nested "near Watford" in 1906-07).

Gade Valley : three pairs near Huntonbridge (1934).

Brent Valley : South Harrow Sewage Farm, two to four pairs bred probably from 1921, certainly from 1928 till 1932, since when the farm does not seem to have been visited by bird-watchers; Pinner Sewage Farm, one pair probably bred, 1930. The bird was not known in the Harrow district in 1903.

Lea Valley : Rye House, possibly, 1914; near Roydon, possibly 1920; Broxbourne, nested 1907, probably 1913 and 1916, possibly 1930; Nazeingwood Common, two or more pairs probably, 1907-37; Waltham Marsh (1938); Enfield Lock, possibly 1939; Enfield, nested regularly near Ridgway, 1902-12 and possibly at Cuckoo Hall Farm, 1915, 1916, and 1923; Marshes adjoining King George Reservoir probably since 1930; Edmonton Sewage Farm, one or two pairs nested 1910-12, and 1935, probably also 1933-34 and 1938, but not in 1936; Walthamstow Sewage Farm probably 1925, possibly 1924, 1928.

Roding Valley : has probably nested between Woodford Green and Abridge in every year since 1911, either in marshy fields by river or on sewage farms at Abridge, Chigwell and Theydon Bois, but actual records only for 1911, 1913, and 1932; Navestock Park (1933).

Beam River Valley : Romford Sewage Farm, probably 1938-39.

Ingrebourne River Valley : Upminster Common, possibly 1921; Harold Wood, three or four pairs, in short pasture (c. 1934).

Mardyke Valley : East Horndon, about 10 pairs bred, 1908-21, and three birds were seen in June 1939. A colony of about six pairs reported "near Brentwood" in 1912 may refer to this.

On passage Redshanks, possibly of the Continental and Iceland as well as the British forms, are most often noticed at Barn Elms, Staines and Walthamstow Reservoirs, and appear to be regular on autumn passage at Brooklands Sewage Farm. They have also been noticed on both passages at the Brent Reservoir, Richmond Park, and Watford Sewage Farm, on spring passage at Littleton Reservoir, on Wimbledon Common and near St Albans and on autumn passage at the Highgate Ponds, Beddington Sewage Farm, W. Molesey, Stoke Newington, and King George Reservoirs, and Dartford Marshes. In the winter months Redshanks are probably regular along the Thames foreshore and are said to be so at Watford Sewage Farm. Occasional birds have been recorded in winter from the Barn Elms, Hampton, King George and Staines Reservoirs, from Beddington, Romford, and Theydon Bois Sewage Farms, Richmond Park, Hamper Mill and Chingford.

In Inner London, Redshanks have four times been seen or heard in Hyde Park (May, July, October and November) and on February 3, 1917, a bitterly cold day, the late E. G. B. Meade-Waldo saw four flying round the courtyard of Victoria Station.

R. S. R. F.

Arrival and Departure of Migrants, 1929-39 : A SUMMARY.

By E. D. and E. R. PARRINDER.

SINCE 1929 the first dates on which migrant birds have been observed in the London area have been given each year in *The London Naturalist* and the *London Bird Report*, and since 1933 the latest dates have also been given. The time now seems opportune to summarise these data and to consider if any useful purpose will be served by the publication of similar lists in future.*

The observations cover a total of 59 species, but of these five only occur once, and the records for 19 others are too few to form a basis for calculating a mean arrival date. A series of 11 consecutive dates is available for the majority of the remaining 35 species and mean arrival dates have been calculated for these and are shown in column (2) of the two tables on p. 32. All but three (White Wagtail, Wheatear, and Common Sandpiper) of the summer migrants breed in the area. No mean dates were based on less than eight records and in only four cases (Reed-Warbler and Brambling, nine records; Nightjar and Siskin, eight records) were less than ten dates used.

After calculating the means for the summer migrants it was found that the date of 9.3.30 for the Whinchat was 37 days earlier than the mean and 32 days earlier than the next earliest date and it was consequently excluded and a fresh mean calculated. Among the winter migrants an early September record for the Goldeneye was 40 days earlier than the mean and was similarly excluded, as were two December records for the Brambling and Siskin. An early record for the Common Sandpiper at a reservoir where the bird was known to have spent the winter was also omitted.

Column (3) of the table shows the extreme variation from the mean dates and column (4) the mean variation, plus or minus the arrival date. Thus the mean range of the Trec-Pipit is from March 30 to April 7, and in fact 10 out of the 11 records fall within this period. It is interesting that the extreme range of the Cuckoo is only nine days and the mean range four days, and that six of the earliest dates are within these four days. This constancy is possibly explained by the unmistakable call making the detection of the bird nearly simultaneous with its arrival in the area.

With the possible exception of Essex and Surrey there were insufficient numbers of observations to justify the compilation of separate mean dates for each county in the area. It was possible, however, to calculate mean arrival dates for the whole of the area north of the Thames

*An interesting comparison is provided by the summary of Hertfordshire migrant dates for the period 1879-1935 by Charles Oldham in *Trans. Herts. Nat. Hist. Soc.* (1937), xx, 141.

and for the whole of the area south of the Thames, and a comparison of the results is given in column (5) of the table. Species marked " S " are those in which the mean is earlier in the south and those marked " N " are earlier in the north of the area.

For the Reed-Warbler, Nightjar, and Wryneck and for the winter migrants less than eight records were used in the calculation of the mean for either north or south and the figures should therefore be treated with reserve. The difference between the north and south mean arrival dates is shown in brackets. It should be realised that the north and south mean arrival dates, which are not shown in the table, are necessarily later than for the whole of the area. It will be seen that in the case of four species the mean arrival is the same for both parts of the area, for 18 species it is earlier south of the Thames and for six species it is earlier north of the Thames. Too much significance should not be attached to this comparison: the Surrey commons provide plentiful breeding grounds for most of the warblers and other migrants and the chances of early detection are high; also much depends on the distribution of bird-observers.

The latest dates of departure of migratory birds have been published since 1933, but the records are spasmodic and in many cases fewer than seven dates are available. With the end of the nesting season and the decrease in the amount of song, the smaller passerines, and the warblers in particular, become difficult to detect in the close summer foliage and last observations may bear no relation to the actual departure of the bird. It has, therefore, only been considered of value to calculate the mean departure dates for the most conspicuous species, and the figures for the Swallow, House-Martin and Swift are given in Table 2. The date, 2.12.33, for the Swallow was excluded.

It should be emphasised that the migration dates which have been published each year, and for which the mean arrival dates have been compiled, are the first and last recorded dates on which each species was *observed*. Most of the records are of individual birds and the dates bear no relation to the arrival and departure of the main body of the species. It should also be made clear that an indeterminate interval must elapse between the actual arrival of any species and its detection in the field. This lag depends partly on the number of observers, but it is largely due to the fact that most bird-watching takes place at the week-ends.

First and last dates of the observed appearance of migratory birds are not of much significance in the study of bird migration, and the continued tabulation of these records does not appear to serve any very useful purpose now that we know the approximate dates at which to expect the first individuals of the commoner species. More records are required for the migrants not included in Table 1 as well as of departure dates and of arrival dates which fall outside the mean variation (i.e., other than between March 30 and April 7 in the case of the Tree-Pipit). In the present and future *London Bird Reports* dates falling outside the mean variation will be published among the specific notes.

TABLE 1.

Species.	Mean Arrival Date.	Extreme Variation.	Mean Variation.	Comparison between North and South of the River Thames.
<i>SUMMER VISITORS.</i>				
Tree-Pipit	3.iv.	- 15+ 4	4	S. (6 days)
Yellow Wagtail	4.iv.	- 11+ 4	3	Same
White Wagtail	8.iv.	- 25+16	14	S. (4 days)
Red-backed Shrike	7.v.	- 10+10	5	Same
Spotted Flycatcher	6.v.	- 10+10	5	N. (2 days)
Chiffchaff	23.iii.	- 15+ 8	4	S. (3 days)
Willow-Warbler	30.iii.	- 10+ 8	5	S. (3 days)
Wood-Warbler	25.iv.	- 9+10	5	S. (2 days)
Grasshopper Warbler ...	24.iv.	- 10+12	6	S. (1 day)
Reed Warbler	29.iv.	- 6+ 8	4	N. (1 day)
Sedge-Warbler	18.iv.	- 9+11	5	N. (2 days)
Garden Warbler	18.iv.	- 15+13	7	Same
Blackcap	10.iv.	- 19+13	7	S. (2 days)
Whitethroat	15.iv.	- 8+ 5	4	S. (3 days)
Lesser Whitethroat	21.iv.	- 8+13	6	Same
Wheatear	23.iii.	- 15+11	6	S. (3 days)
Whinchat	18.iv.	- 8+12	6	N. (10 days)
Redstart	8.iv.	- 12+11	5	S. (3 days)
Nightingale	18.iv.	- 8+12	6	N. (1 day)
Swallow	6.iv.	- 10+ 7	5	S. (2 days)
Martin	10.iv.	- 22+10	6	S. (7 days)
Sand Martin	3.iv.	- 15+11	7	S. (1 day)
Swift	22.iv.	- 9+ 5	4	N. (2 days)
Nightjar	12.v.	- 13+10	6	S. (4 days)
Wryneck	8.iv.	- 11+12	6	S. (15 days)
Cuckoo	11.iv.	- 4+ 5	2	S. (4 days)
Turtle-Dove	30.iv.	- 8+ 6	3	S. (6 days)
Common Sandpiper	13.iv.	- 8+10	3	S. (6 days)

WINTER VISITORS.

Siskin	25.x.	- 20+21	13	S. (18 days)
Brambling	15.x.	- 5+ 7	4	S. (20 days)
Fieldfare	29.x.	- 14+26	10	Same
Redwing	12.x.	- 15+22	7	Same
Goldeneye	17.x.	- 21+12	9	N. (17 days)
Goosander	30.x.	- 8+13	5	N. (25 days)
Smew	27.xi.	- 17+13	7	S. (5 days)

TABLE 2.

Species.	Mean Departure Date.	Extreme Variation.	Mean Variation.	Comparison between N. and S. of R. Thames.
Swallow	5.xi.	- 16+ 4	7	N. (9 days)
House Martin	28.x.	- 6+15	5	Same
Swift	16.ix.	- 17+20	11	S. (3 days)



PRESENTED

15 JUL 1940

Bird Ringing, 1939.

THE Society's returns to the Bird Ringing Committee of the British Trust for Ornithology show a considerable increase. 1482 birds of 60 species were ringed, as compared with 673 birds of 47 species in 1938. The record total of 1976 birds in 1937, included 937 Manx Shearwaters, whereas this year's figures reflect a more evenly distributed increase. The Society's trap at Beddington Sewage Farm made a considerable contribution to the fact that the number of adult birds trapped again exceeds the number of nestlings. The following table analyses the efforts of the 17 ringers who took part in the work:—

Name of Ringer.	Nestlings.	Trapped.	Total.
C. B. Ashby	11	8	19
F. W. Blake	36	93	129
S. Boardman	46	163	209
B. C. L. Boyd and H. B. Fossey ...	6	—	6
C. L. Collenette	—	8	8
P. W. E. Currie	281	26	307
Miss J. Fisk (per Miss L. Frederick)	10	2	12
R. S. R. Fitter	81	1	82
R. C. Homes	20	60	80
G. E. Manser	8	23	31
W. D. Park	14	201	215
L. Parmenter	26	61	87
D. A. Rawlence	49	—	49
R. A. Underwood	24	13	37
C. A. White	—	50	50
J. A. Wigzell	9	152	161
Total, 1939	621	861	1482
Total, 1938	239	434	673
Total, 1937	901	1075	1976

The most numerous species ringed were:—

Starling	283	Song Thrush	77
Great Skua	259	Blue Tit	59
Manx Shearwater	140	Chaffinch	53
Blackbird	123	Robin	46

We welcome six new ringers:—Miss J. Fisk (per Miss L. Frederick) and Messrs C. B. Ashby, B. C. L. Boyd, H. B. Fossey, D. A. Rawlence and C. A. White.

Rings may be obtained at a cost of 1/- per packet of 20 from the Bird Ringing Secretary—R. W. Hale, 6 Grendon Gardens, Wembley Park, Middsx.—who will be glad to hear from any member interested in ringing.

Details of birds recovered in the Society's area, or ringed in the area and recovered elsewhere will be found in the specific notes under Starling, Greenfinch, Linnet, Song-Thrush, Blackbird, Robin, Barn-Owl, Sparrowhawk, Heron, Goosander and Black-headed Gull. Space does not permit of our giving details of recoveries of birds ringed by members of the Society outside the Society's area.

